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Navn:	Katarina Karlsen Ugland og Thea Enger Iversen

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Navn på veileder *:	Janis Berzins

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“WHY DO COMPOUNDING FIRMS OBTAIN SIGNIFICANTLY HIGHER SHARE PRICE RETURNS COMPARED TO OTHER SERVICE AND INFRASTRUCTURE FIRMS?”

Master Thesis

MSc in Business, Major in Finance

Assigned supervisor:
Janis Berzins

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Abstract

This thesis aims to investigate the phenomenon of compounders and their ability to obtain significant and often unexplainably high returns on their acquisitions. It compares compounders with other service and infrastructure firms in the Nordic region to confirm the existence of these high returns and identify potential reasons for their outperformance. Through regression analysis, looking at value metrics such as revenue growth, EV/EBITDA, and ROIC as potential explanatory variables, the study finds that compounders indeed achieve higher returns compared to the control sample attributing the success to revenue growth and EV/EBITDA. The research also suggests that non-numerical factors such as autonomy and strong in-house competence contribute to their success, as indicated by insights from an interview with the M&A director of one of Norway's more prominent compounders. The findings of the study provide a foundation for future investigations into a compounders' success, enhancing the understanding of investment strategies and challenging conventional assumptions about market efficiency.

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1. Introduction and motivation

According to Arkwright's research, compounders manage to get approximately 40% shareholder returns compared to other service and infrastructure firms. A statistic presented by Lars Rimmereid in a lecture at BI Norwegian Business School on March 15th, 2022. The exact definition of a compounder varies. However, they tend to be characterised as corporations that obtain high and sustainable growth over a long period, where they, through skilled management, reinvest their earnings back into the company regularly (Bowman, 2023). For the purpose of this thesis, compounders are defined as corporations that engage in frequent acquisitions within their core business, compounding their overall value. A definition constructed to be in alignment with how compounders were presented in the abovementioned Arkwright research. Thus, compounders are central actors in the business of M&A. However, they differ from for instance conglomerates in their specific and more limited acquisition strategy. To be precise, Arkwright, in their research, found the share price return of the compounders in their sample to be approximately 15%, which deviates from the average share price returns. Having been presented with this topic during the lecture from Arkwright in the subject Applied Valuation, an elective on our master's degree, we decided to take on the challenge of learning more about this topic and hopefully find some causation between the abnormal share price return and the somewhat unresearched business of compounders.

At the time when the topic under consideration was introduced to us, we had already made a partial decision to focus our thesis on the field of corporate finance. We discussed exploring Visma AS as a subject due to its remarkable growth in recent years. Rimmereid’s perspective on shareholder returns thus acted as a thought-provoking viewpoint for our thesis. Moreover, given the scarcity of research on the incongruency in shareholder returns, we found it intriguing to delve deeper into this subject.

The objective of our thesis is to explain the reasons why compounders achieve high share price returns as a result of acquisitions. By comparing compounders and other service and infrastructure firms in the Nordic region, this study therefore seeks to firstly confirm whether these high returns exist and secondly identify the potential causes for their outperformance. This is done by supplementing a pre-specified sample of both compounders and other service and infrastructure firms from Arkwright with additional data. Further, it employs a regression analysis to investigate the dependent variable of share price return of the firms in our sample and a series of independent variables that may have an impact on the share price return. More specifically, the independent variables cover value metrics such as revenue growth, EV/EBITDA, and ROIC. Furthermore, a dummy variable is included to differentiate the compounders from the control sample.

Given the limited existing research in this area and the fundamental theories stating the absence of a "free lunch" in finance, we are particularly interested in uncovering the rationale behind the significantly high returns of compounder firms compared to other service and infrastructure firms. By identifying potential contributing factors for their superior returns, we aim to establish a link between these returns and the specific reasons behind their success. Embracing a somewhat unconventional topic for our thesis requires thinking outside the box, which further motivates us to take on this rather demanding topic.

We recognise the challenges associated with our research question. However, by actively incorporating information obtained from the Arkwright lecture and maintaining an open dialogue with Rimmereid throughout the entire process, we are confident in our ability to construct a sufficient foundation. In addition to insights from Arkwright, we have conducted interviews with Stian Berg, the director of M&A at the Visma Group, one of Norway's most prominent compounders. Although Visma is not included in our sample due to considerations related to data design, we believe we have a strong basis for achieving satisfactory results.

This topic holds significance due to the untapped potential within this specific field. Given the substantial growth of compounders, it is valuable to investigate the synergies and underlying reasons behind their success. Acknowledging the limitations of this study, more specifically in terms of scarcity of information and previous research on the topic, this study contributes to a groundwork for future investigations into compounders' success. By pointing out the factors that help explain their performance, this thesis increases the understanding of investment strategies and questions the traditional assumptions regarding market efficiency. However, we will utilise data provided by Arkwright Consulting AS to conduct our analysis and general financial theory linked to M&A as well as insights from Stian Berg to evaluate our data and findings.

2. Literature Review and Theoretical Framework

2.1 Primary

2.1.1 Compounders

As previously mentioned, Bowman explained compounders to be firms that reinvest earnings back into the firm and obtain sustainable growth over a longer period of time (Bowman, 2023). Hence the given name of compounders, where the value compounds over time. According to Albert Einstein, compounding interest is the most powerful force in the universe (Kay, 2008). This quote allows us to somewhat imagine the potential power the compounding firms may have. Paulson & Derold (2015) further define compounders as "Companies with high quality, franchise businesses, ideally with recurring revenues, built on dominant and durable intangible assets, which possess pricing power and low capital intensity" (p.2). Further, Barnaby Wilson, managing director of Lazard Asset Management, characterises compounders as high-quality businesses that reinvest their high returns back into their own business (Wilson, 2021).

Compounders thus tend to have financial strength from intangible assets, and the critical financial characteristic is a high Return on Invested Capital (ROIC), high gross margins and low-capital intensity. Together these components support strong free cash flow generation, which must be reinvested or distributed to shareholders (Paulson & Derold, 2015, p.2). They believe that compounders have a sustainable competitive advantage through their intangible assets. Competitors may have difficulty re-creating these intangible assets, making the competitive position of compounders even stronger (Paulson & Derold, p.2). These characteristics, together with the description by Wilson, highlight the same ideas as what Bowman emphasised in his report of compounders as corporations with high and sustainable growth that reinvest their earnings whilst focusing on their core business (Bowman, 2023).

2.1.2 Conglomerates

Considering that compounders seemingly build their strategy on reinvesting their earnings, usually through acquisitions, to sustain high growth, one may draw lines between compounders and what is known as conglomerates. According to the CFI Team, a conglomerate is a large company comprising several combined companies formed by M&A activities. Conglomerates often supply goods and services in a vast range of industries that are not directly related to one another (CFI Team, 2022). Maksimovic & Philips refers to several other recent studies, which have provided evidence that conglomerates may face a conglomerate discount because they have a greater chance of acquiring and selling assets differently than the median single-segment firm. Further, it is proven that conglomerate firms, on average, more often purchase lower-value firms than other single-segment counterparts (Maksimovic & Philips, 2002, p.763).

2.2 Acquisitions

In a fast-paced economy, mergers and acquisitions (M&A) play a vital role as even innovative companies may need help to utilise products fully. Additionally, organisations may encounter excess capacity in a market experiencing a declining demand. In such situations, acquiring another company is the best solution to allocate resources efficiently. Studies have shown that acquisitions that reduce excess capacity or improved management and ownership can create significant value for investors and the economy (Koller et al., 2020, p. 625).

2.2.1 Do Acquisitions Create Value?

There has been a significant increase in M&A deals in recent years, with 2021 reaching record highs. According to PWC's 2022 review of global M&A industry trends, this trend has continued into the second half of 2022 (PWC, 2022). According to Faulkner et al. (2012, p.1), after the 19th century, organisations began to use mergers and acquisitions (M&A) as a primary strategic option to maintain their position in a highly competitive and globalized market. However, while M&A is important for a company's growth, evidence suggests that it often

fails to create value for the acquiring firm. Renneboog and Vansteenkiste (2019) have found that despite its significance, M&A activities tend to have a low success rate. This concept, which may be considered as surprising by some, is named the M&A paradox. The M&A paradox covers the contradicting trends of M&A activities growth despite the evidence arguing that M&A activities generally seem to fail (Weber et al., 2011). Weber, Tarba, and Bachar's meta-analysis suggests that there may be a limited understanding of the subject.

It is apparent that there are conflicting views about the effectiveness of M&A. Marquette University conducted a study that shows that M&A can be successful, but only if it's carefully planned and executed (Hitt et al., 2009, p.9). Further, a study conducted by EY found that M&A can result in an increase in enterprise value (EV) and total shareholder return (TSR) (Sloan, 2021). This goes against the aforementioned belief that M&A leads to adverse outcomes. Considering that TSR by Sloan was stated to be one of the more common value creation metrics, the evidence found by Sloan thereby argues for the success of M&A for the growth of corporate value. Another study by Rehm et al. (2012) reinforces the notion of the effectiveness of M&A. It emphasises the need for a tailored approach to determine if acquisitions create value, considering the significant differences between industries and M&A strategies (Rehm et al., 2012, p.1). They highlight that while returns associated with M&A vary considerably, the best strategies are broadly indicated by industry (Rehm et al., 2012, p.6). They further specify the tendency of this industry factor to be more relevant for the success of large deals and not so much for the smaller ones where the capabilities of the acquiring firm are of relevance. Suggesting that the effectiveness of M&A activities is not straightforward, and depends on a variety of factors depending on the firm in question.

Having said that, the majority of the literature claims that mergers and acquisitions, on average, do not create value for the acquiring firm. Back in 1997, Alan Gregory conducted a study in the UK to determine if acquisitions caused a decrease in the acquiring company's wealth, as previous research in the US had indicated. The study aimed to identify any inaccuracies in the earlier findings.

Alan's research confirms that large domestic acquisitions can have a long-lasting negative effect, consistent with earlier studies on the subject. (Gregory, 1997, p.998). This paper wanted to control for size alone, as well as the size and Balloon Mitral Valvotomy, and made use of 4 different models in an attempt to disprove the general conclusion that acquisitions were significantly negative. However, Gregory failed to alter the general conclusion, which later has been supported by, amongst others, a meta-analysis provided by Meckl' & Röhrle in 2016, suggesting that actual mergers and acquisitions tend to be unsuccessful (Meckl' & Röhrle, 2016, p.9).

It is evident that the efficacy of mergers and acquisitions (M&A) has been a subject of ongoing discourse, with inconclusive evidence to support either side of the argument. Several specialists have even posited that the crucial determinants that lead to a successful M&A process are yet to be identified (Gomes et al., 2012). Some researchers have even argued that non-financials are critical in determining a company's M&A success (Kavanaugh & Ashkanasy, 2006), suggesting a more holistic view.

2.2.2 Cash Offers and Equity Offers

The study conducted by Alan Gregory in 1997 revealed that, in general, mergers and acquisitions fail to generate value for the acquiring firm in the long run. However, Gregory did identify certain variations in the outcomes of these transactions. Specifically, he found that cash offers did not significantly impact post-merger performance, whereas equity offers had a notable effect that led to negative post-outcome performance. This suggests that acquirers may use overvalued equity to acquire target firms (Gregory, 1997, p. 998).

Similarly to the findings by Gregory, Stian Berg, the Director of Mergers and Acquisitions at Visma AS, has disclosed the company's mergers and acquisitions strategy. They use a cash offers approach with an earn-out structure that lasts for

three years and is based on predetermined goals. Annual cash offers are provided, but Private Equity companies receive immediate payouts.

2.3 Foundation for Evaluation

To gain insight into why compounders are outperforming other infrastructure firms, we'll begin by examining the numerical discrepancy between them, with EV/EBITDA and TSR as our primary measures. This is because both are susceptible to M&A activity, which may be linked to compounder performance. Furthermore, since M&A activity is linked to investor behavior, it's possible that behavioral finance is a factor in the success of compounders. Once we have established the theoretical basis for EV/EBITDA and TSR, we will investigate this further.

2.3.1 EV/EBITDA

As mentioned in section 2.1.1, the impact of mergers and acquisitions (M&A) on a company's enterprise value (EV) has been analyzed in a recent study conducted by Bill Sloan for EY (Sloan, 2021). EV considers the company's debt and is a reliable metric for evaluating M&A activity (Hayes, 2022). The enterprise multiple, EV/EBITDA, which measures a company's economic value against its operating performance, is a crucial factor for potential acquirers (Hayes, 2022). Thus, in our analysis, EV/EBITDA is considered a valuable valuation multiple.

2.3.2 TSR

In the same study, Sloan further posed TSR as one of the metrics that positively correlates with value creation from M&A activities. For clarification TSR covers the total return of a stock for an investor, consisting of the share price return and dividend yield (Koller, Goedhart and Wessels, 2020). As stated earlier, Sloan highlighted the TSR as a commonly used metric for value creation in M&A activities in his article for EY Parthenon (Sloan, 2021). Further, Ganti's research suggests that a company's TSR performance can serve as a valuable indicator for

investors to assess potential gains from investing (Ganti, 2021), which in relation to the given research question for this thesis may be considered as highly relevant.

Having said that, there is also a need to state the conflicting views on the matter. While some researchers argue for the positive correlation between TSR and M&A activities, there will naturally also be researchers arguing that the share price of corporations engaging in M&A activities suffers. Coherent with the initial conflict of whether engaging in M&A will be beneficial at all, as already discussed. What determines the conflicting views on the matter may be questioned, however, findings by Hackbarth and Morellec (2008) suggest that aspects such as the financing of the acquisition decides the positive or negative development of the stock price. Having said that, the common denominator in this debate, whether negatively or positively affected, is the stock price and its fluctuations which again is directly linked to the TSR. Thus, regarding a potential acquisition, the acquirer will be left with an indication of how much the acquirer will be left with after the acquisition, which, therefore, may be considered an efficient projector of how the company will do in the future. Further, by decomposing the TSR, one can help with setting targets for the company (Koller et.al., 2020, p. 74-76). Thus, using the TSR as a metric may provide acquirers with a good projection of the future.

2.3.3 Behavioral Finance

To investigate why there are such differences in M&A performance, we consider it useful to investigate theoretical frameworks such as the efficient market hypothesis (EMH) and behavioural finance, specifically in terms of biases. In a nutshell, the difference in perception of M&A activities' success must be explainable in one way or another. In coherence with amongst others Kavanaugh and Ashkanasy´s (2006) belief of it being attributed to non-financials, one may argue that there are concepts outside of plain numerical analysis. For instance, in terms of behavioural finance, covering the theory behind financial decision-making. Thus, it may also be able to capture what is going on behind decisions related to M&A activities.

Behavioural finance, in general, assumes that no human, thus no financial actors, acts perfectly rationally but is affected by biases and psychological influences (Hayes, 2022). Coherent with the rational choice theory stating that most people make decisions for their own personal gain, thus despite the assumption of rationality as the core, complete rationality may thus not be possible (Ganti, 2022). Based on this, no one is able to make decisions without being affected by emotions, prior experiences, and knowledge. In terms of M&A performance, given that the decisions are made by humans either in or outside of the organization, this would then argue that a potential acquirer cannot be completely rational and make decisions without being affected by some bias. This again may be perceived as a dimension that partly explains the different perceptions of M&A performance. Further, research suggests that M&A performance, in fact, does not follow rational management behaviour since M&A managers tend to overestimate the gain from the merger (Subrahmanyam, 2007).

2.3.4 The Efficient Market Hypothesis

After mentioning the rationality assumption of behavioral finance, it can be argued that the efficient market hypothesis may not hold true. According to this hypothesis, all information available in the market is reflected in the market prices (Downey, 2022). Thus, it argues that market participants are rational. In terms of M&A this would presume that an acquirer should not be able to obtain any excessive returns or losses on their acquisitions. Efficient market theorists argue that the EMH tends to hold at individual stock levels but not at aggregate market levels, which again is in alignment with the tendency of the EMH to be unable to explain market anomalies (Shiller, 2003). Shiller, in his paper on behavioural finance and the EMH, argued that EMH cannot be used to describe markets and market movements but rather that behavioural finance, on a greater level, needed to be included to capture the wholeness of the market movements. One could therefore assume that the EMH would be inefficient in explaining the differences in M&A performance.

2.4 Diversification

Broadly speaking, one may argue that part of the purpose of M&A is to diversify. The extent of diversification, particularly in this context, tend to vary. Since conglomerate firms consist of several combined companies that operate in industries that are not directly related, one can argue that their business model is based on diversification. Yet, even though compounders operate differently in their acquisition strategy they may be considered to diversify as well. Maksimovic & Phillips (2002) have provided evidence that firms with skill in production within an industry obtain higher growth and a higher market share. Which more or less may be linked to the definition of compounders. This study also provides evidence that conglomerates may have to deal with agency problems, and that demand shocks in one segment may affect the growth rates of other segments in the company.

Further, Klein (2001) provided evidence that there is an overall negative relationship between value and diversification. He found that the performance of large, acquisitive conglomerates was more volatile than compounders and other infrastructure firms during periods with discounts, such as late 60's and early 70's. However, the literature of Klein (2001) is conflicting as he found that *"Appropriately organized conglomerates"* could add value by creating internal capital markets. This finding is supported by earlier findings of Williamson (1975).

Having considered the above, Markides & Oyon (1998) on the other hand has provided evidence that international acquisitions on average create value for shareholders of the acquiring firm. A possible solution for this might be that international acquisitions indirectly allow investors to diversify their portfolio risk by purchasing multinational shares. Further, another solution might be that the acquiring firm increases its profits because they get to exploit their intangible assets in other markets (Markides & Oyon, 1998, p. 132). International acquisitions only create value if the acquiring firm possesses intangible assets.

Such international acquisition may contribute to diversification for compounding firms.

3. Research Methodology and Hypotheses

3.1 Hypothesis

Drawing on the literature revies, we will now put forward our hypothesis.

H1: Compounders obtain higher share price return because of competitive advantage compared to other service and infrastructure firms.

H1 suggests that compounders in an industry achieve greater market share and growth due to their skill in production. Additionally, there is evidence showing a negative correlation between value and diversification.

H2: Compounders obtain higher share price return compared to other service and infrastructure firms due to their value creation from investments.

The concept of value creation has been closely associated with the metric called return on invested capital (ROIC), as indicated in an article posted by Morgan Stanley (Mauboussin and Callahan, 2022) This metric is believed to have a strong correlation with the difference in share price returns between compounders and other service and infrastructure firms. Thus, H2 suggests that compounders should have a higher ROIC than service and infrastructure firms. Moreover, the article highlights that companies with a high ROIC tend to perform better in M&A deals than those with a lower ROIC (Mauboussin and Callahan, 2022). Therefore, there may be a significant relationship between a high ROIC and the exceptional performance of compounders. These findings have significant implications for investors and businesses, as they can inform decision-making processes that aim to achieve long-term value creation and sustainable growth.

H3: Compounders obtain higher share price return than other service and infrastructure firms because of benefits from stable and organic revenue growth.

Some researchers suggest that M&A are crucial for a corporation's growth. The third and final hypothesis of compounders' outstanding performance is therefore based on the belief that they, through a targeted M&A approach, can achieve an organic revenue growth. The previously mentioned study on M&A by Sloan for EY Parthenon found that companies engaging in limited M&A activities seemed to grow faster than those who did not limit their strategy (Sloan, 2021). This finding supports the strategy of successful companies that acquire businesses within their specific core business. Therefore, it is reasonable to assume that these companies' success is due to their more focused acquisition strategies.

3.2 Methodology

To answer the research question of why compounders obtain high EV/EBITDA multiple it will be essential and necessary to compare, among others, share price, shareholder return, and total return for compounders with the same values for other service and infrastructure firms. Therefore, it is appropriate to use a quantitative approach for our master thesis, which emphasizes the statistical, mathematical, or numerical analysis of data (USCLibraries, 2023). However, there seems to be limited literature on the topic. Therefore, to ensure that our master thesis holds the theoretical weight that we want, and the right insight into the industry to be able to give a full-fledged answer to our research question, we have chosen to combine a quantitative approach with a qualitative approach, which involves collecting and analyzing non-numerical data through open-ended communication (Cornell, 2022).

As several influential employees from Visma AS pointed out in our previous meetings, analysis of numerical data only will answer a fraction of the enormous success of Visma AS (as a compounder) over the past years (see appendix 3). This is supported by Cornell (2022), which has provided evidence that numbers do not provide a complete picture in order to understand people and their perceptions and emotions. To summarize, it will be appropriate for us to use a combination of a quantitative and a qualitative approach in our master thesis.

4. Data

The dataset utilized in this study was derived from a sample obtained from Arkwright Consulting in December 2022. The sample consisted of compounders and other service and infrastructure firms in the Nordics for the period spanning from 2011 to 2021. While the sample size was initially small, supplementary data was obtained to fortify the findings. The primary objective of this research was to furnish additional evidence to support the original proposition of superior returns from compounders. Consequently, supplementary data was collected to augment the sample size for analysis. The dataset utilized in this study is restricted to publicly listed companies within the Nordics and encompasses various values, including total returns, share price returns, and dividend yield, which are computed based on an assortment of financial metrics.

Our master thesis also contains qualitative data obtained through interviews with Visma AS. On December 22nd, we had the privilege of interviewing Stian Berg, the director of M&A at Visma, who provided us with comprehensive information on how the company achieves outstanding results annually. Following further research and analysis, we held another meeting on April 25th to delve deeper into the relevant points for our study's conclusion.

4.1 Description of the data source

To collect the financial values needed to supplement the original dataset from Arkwright, we used the Bloomberg Terminal. The Bloomberg Terminal is a tool where one can retrieve detailed information about listed corporations, providing real-time and updated data at all times. The data retrieved from the Bloomberg Terminal were book values in NOK of every listed company in our sample. To achieve a common ground for all the financial values in the sample we corrected the already plotted numbers in SEK by extracting new values in NOK for the firms already in the Arkwright sample. This was also done through the Bloomberg Terminal (see appendix 2 for complete datasample).

4.2 Data sample and processing

The final dataset consisting of both the Arkwright sample and the supplementary data collected from the Bloomberg Terminal may be defined as panel data. Clower, E. (2019) defines Panel data as *"data that contains observations about different cross sections across time. Examples of groups that may make up panel data series include countries, firms, individuals, or demographic groups"*. Considering the given research question for our thesis, we needed a significant amount of firms as well as a significant amount of financial values for each firm.

The initial data received from Arkwright consisted of a total of 16 compounders and 7 other service and infrastructure firms with a variety of financial values and ratios were accounted for. More specifically, stock price, Net Operating Profit after tax, invested capital, ROIC, revenue, EBITDA, Market Cap, dividend yield, dividend per share, enterprise value, free cash flow, free cash flow per share and price-to-cash flow was found. These again had been used to calculate the total return, share price returns and dividend yield, where all numbers were reported in SEK. When supplementing the initial data sample we aimed to find more listed compounders in the Nordics. To gather this information we searched for a range of listed companies in the Nordics that satisfied the requirements we set for being defined as a compounder and firms not defined as a compounder but that fell into the service or infrastructure industry (see appendix 2 for set definitions of compounders and service- and infrastructure firms). Having collected the firms that fit our criteria, we were left with a sample of 24 compounders and 111 service- and infrastructure firms. All firms were then split into their respective industry (see appendix 2).

To limit the scope of our analysis we cut the financial variables that would be relevant in terms of our set hypotheses down to share price return, ROIC, revenue growth and EV/EBITDA, and collected the said variables from our new additions to the dataset. The financial values from the initial Arkwright sample that were in excess were then removed. Further, we added the independent variable of leverage ratio, firm size and firm age for every firm in our sample. After having collected

and structured the dataset, we then winsorized the dataset to remove extreme outliers from our dataset and make our sample more robust.

4.3 Variables

4.3.1 Dependent variable - Share price return

In order to determine why compounding firms obtain a significantly higher share price return compared to other service and infrastructure firms we will run a regression with share price return as our dependent variable. Share price return are one of the two components of TSR (as described in section 2.2.2). According to Burgman & Clieaf (2012, p.2) shareholder return is measured as share price appreciation or depreciation. Desai, Egan & Mayfield (2022) points out that TSR has become a critical element of governance because of its neutral and market-based expression, which makes it impossible to manipulate by managers. Thus, share price return has been considered as a solid dependent variable to answer our research question.

$$Share\ Price\ Return = \left(\frac{Stock\ Price_t}{Stock\ Price_{t-1}}\right) - 1$$

4.3.2 Independent variables

The empirical foundation for the drivers of a compounders' high share price return is minimal. However, there is plenty of research stating that share price returns are closely related to M&A success. Therefore, it may be reasonable to assume the link between high share price return and a compounder's success. Assuming this as likely, we have defined the following independent variables in our regression: *ROIC, Revenue Growth,* the *EV/EBITDA multiple, leverage ratio, firm size* and *age.* Previous research states that these three variables all have explanatory power of M&A success.

4.3.2.1 ROIC

Return on Invested Capital (ROIC) aims to measure the return earned on capital invested in an investment (Damodaran, 2007, p.7). According to Koller & Goedhart & Wessels (2020, p.7) ROIC is a central part of the creation of cash flows which again drives value creation. Following Mauboussin & Callahan (2022), high ROIC are on average closely connected to solid and successful M&A deals.

$$\text{Return on Invested Capital (ROIC)} = \frac{Net\ Operating\ Profit\ After\ Tax\ (NOPAT)}{Average\ Invested\ Capital}$$

4.3.2.2 Revenue Growth

Revenue growth is determined by comparing the current period's revenue performance with that of previous periods (Durant, 2023). It has become an important metric to measure the success and progress of a business (Durant, 2023). Together with ROIC, Revenue Growth is the second component to cash flow generation which again contributes to value creation (Koller & Goedhart & Wessels, 2020, p.7)

$$Revenue\ Growth = \frac{Revenue\ Growth_t - Revenue\ Growth_{t-1}}{Revenue\ Growth_{t-1}}$$

4.3.2.3 EV/EBITDA Multiple

According to Feldstein (2018, p.1) *EV/EBITDA multiple* is among the most popular techniques to value a business, and if you apply this multiple properly it can be a very helpful tool. However, one should keep in mind that a naive use of this multiple leads to valuation mistakes. Limitations of EV/EBITDA multiple are among others that it does not include changes in working capital requirements and that it does not consider capital investments (Fernández, 2001, p.5).

$$EV/EBITDA = \frac{Enterprice\ Value}{Earnings\ Before\ Interest,\ Tax, Depreciation\ and\ Amortization\ (EBITDA)}$$

4.3.2.4 Leverage ratio

Gonzalez (2013, p.169) states that a firm's leverage ratio has a negative effect on its performance, indicating that firms of high profitability and performance can finance their own activities from internal funds. This argument is supported by the Pecking Order Theory by Myers and Majluf (1984) arguing that more profitable firms will resort to internal financing in terms of retained earnings and thus reduce the amount of debt used. Moving away from the Pecking Order Theory, Myers (1984) has also presented the trade-off theory where it is argued that there in fact is a positive relationship between performance and leverage due to tax shields. The two theories do present two opposite views on the effect of leverage on a firm's performance. However, both argue for leverage ratios significance in firm performance, which further highlights the relevance in considering leverage ratio as one of our independent variables.

$$Leverage\ ratio = \frac{Debt}{Equity}$$

4.3.2.5 Firm size

Based on the fact that different sized firms tend to have different capital structure (Ibaghui and Olokoyo, 2018, p. 57) it is reasonable to assume that the firm size also has an effect on the performance of the firm. Thus, it is useful to control for firm size when measuring firm performance to account for potential sensitivities related to for instance the smaller firms compared to the bigger ones. Firm size is in this thesis used as a test of robustness for the model, and thus added to the regression after the first run.

$$Firm\ size = no.employees$$

4.3.2.6 Firm age

The firm age covers the number of years the firm has operated, here accounted for as years since establishment. This variable is considered relevant due to the potential competitive advantages and synergies that may come from having been present in the market for longer. Firm age is similarly to firm size added as a variable to test for robustness and is thus added in the second round of testing.

$$Age = years\ since\ establishment$$

4.4 Descriptive Statistics

In section 4.4 descriptive statistics will be presented. Table 4.4.1 summarises the main features of the final data source of this master thesis. The summary is divided into three main groups, all firms, compounders and service and infrastructure firms respectively. Due to the characteristics of the research question, dividing the summary in this way will give an overall overview of the findings for the two main groupings before further analyses. We acknowledge that there are fewer compounders than service and infrastructure firms in our data sample, with only 24 compared to 111. To ensure accuracy, we selected a control sample of 111 firms operating in the same industry as the compounders. This gives us confidence in the credibility of our results.

Table 4.4.1 Descriptive statistics

	Compounder			Service- and infrastructure firms			All firms		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Dependent Variable									
Share Price Return	0.229	(0.398)	0.9791	0.14980	(0.38000)	0.97909	0.16374	(0.38000)	0.97909
Independent variables									
ROIC	13.255	(10.825)	28.523	6.734	(10.825)	28.523	7.816	(10.825)	28.523
Revenue Growth	0.11254	(0.21135)	0.51129	0.08091	(0.21135)	0.51129	0.08651	(0.21135)	0.51129
EV/EBITDA	12.626	(2.754)	30.779	9.962	(2.754)	30.779	10.447	(2.754)	30.779
Leverage Ratio	60.23	0.00	293.11	65.06	0.00	293.11	64.25	0.00	293.11
Firm size	8506	1129	42862	7709	66	44133	7844	66	44133
Firm age	70.96	9	155	71.53	9	180	71.43	9	180
n	24			111			135		

Table 4.4.1 presents a comprehensive summary of the final data sample for the study. The sample consists of a total of (n) firms, and the values for each variable

are presented as (Mean) for mean, (Min) for minimum, and (Max) for maximum. The study examines the relationship between the dependent variable, share price return, and the independent variables, which include ROIC, Revenue Growth, EV/EBITDA, and the main independent variable, Leverage Ratio. Share price return is measured based on the share price return in year t minus the share price return in year t-1 minus 1. On the other hand, ROIC is determined by dividing NOPAT by average invested capital, while Revenue Growth is calculated by dividing the revenue growth in year t minus the revenue growth in year t-1 by the revenue growth in year t-1. EV/EBITDA is measured by dividing enterprise value by earnings before interest, tax, depreciation, and amortization. Moreover, the study includes two control variables, Firm Size and Firm Age, which are included in the robustness test. Firm Size is measured by the number of employees, while Firm Age is determined by the number of years since establishment. The study employs an academic approach to analyze the relationship between the variables and provides valuable insights that can contribute to the existing literature in the field.

After examining the data in table 4.4.1, it is clear that service and infrastructure firms have a lower minimum share price return compared to compounders. Conversely, compounders have a higher maximum share price return than service and infrastructure firms. This suggests that compounding firms generally have a higher average share price return than other service and infrastructure firms, further supported by their higher mean value. However, it's worth noting that the maximum value for both groups is almost the same, indicating that the difference in share price return does not solely come from the top performers. The summary shows that compounders tend to generate higher returns on their share prices compared to service and infrastructure companies, despite potentially having lower leverage ratios and being younger firms. This is due to their stronger economic performance.

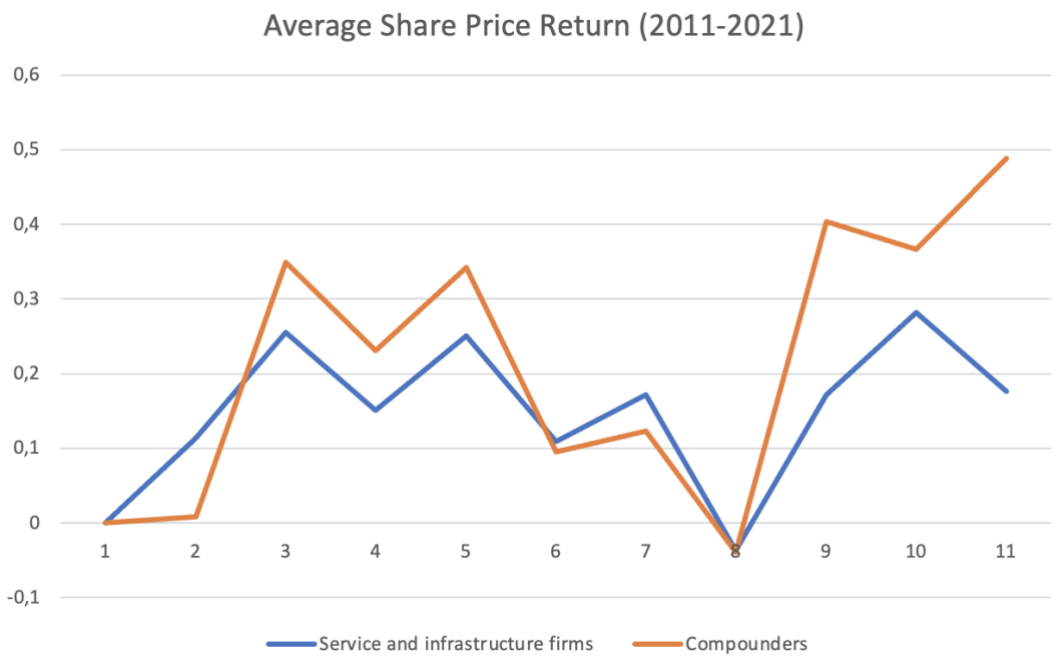

Illustration 4.4.1: *Average Share Price Return for Service & Infrastructure- and Compounding firms within the Nordics in the final sample from 2011 to 2021.*

Illustration 4.4.1 presents the average share price return for Nordic service, infrastructure, and compounding firms over a period of 11 years. The results indicate that while compounding firms tend to exhibit a slightly higher return compared to their counterparts, the difference is not statistically significant. The fluctuations observed in both groups can be attributed to a range of socio-economic factors, which may have influenced the performance of these firms. The trade conflict between China and the USA seems to have triggered a major downturn in the world economy in 2018 which is reflected in both graphs. Further we observe spikes in the share price returns of both compounders and service and infrastructure firms in 2019, that may be linked to the Covid-19 outburst.

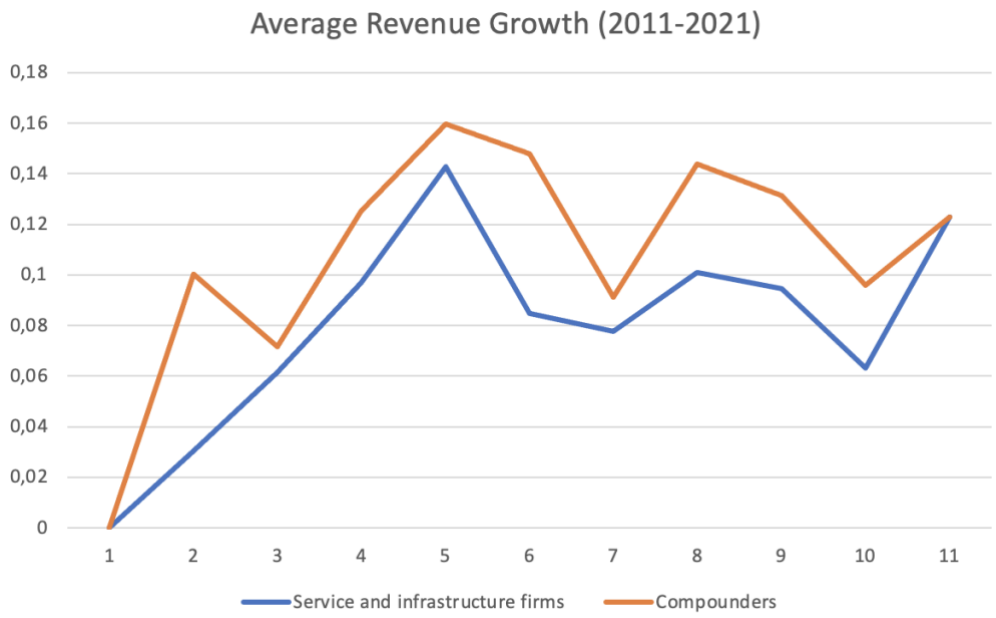

Illustration 4.4.2: *Average Revenue Growth for Service & Infrastructure- and Compounding firms within the Nordics from 2011 to 2021 in the final sample.*

Illustration 4.4.2 depicts a comparison of the average revenue growth of service and infrastructure firms against compounding firms in the Nordics from 2011 to 2021. The data was sourced from a final sample of all firms operating within the region. The findings reveal that compounding firms typically experience higher revenue growth over time, albeit with greater fluctuations. Notably, both categories of firms encountered a decline in revenue growth due to the Covid-19 pandemic, followed by a significant surge. Noteworthy, the surge in revenue growth for service and infrastructure firms from 2020 onwards is, in fact, higher than that of compounding firms, leading to the convergence of the two graphs in 2021.

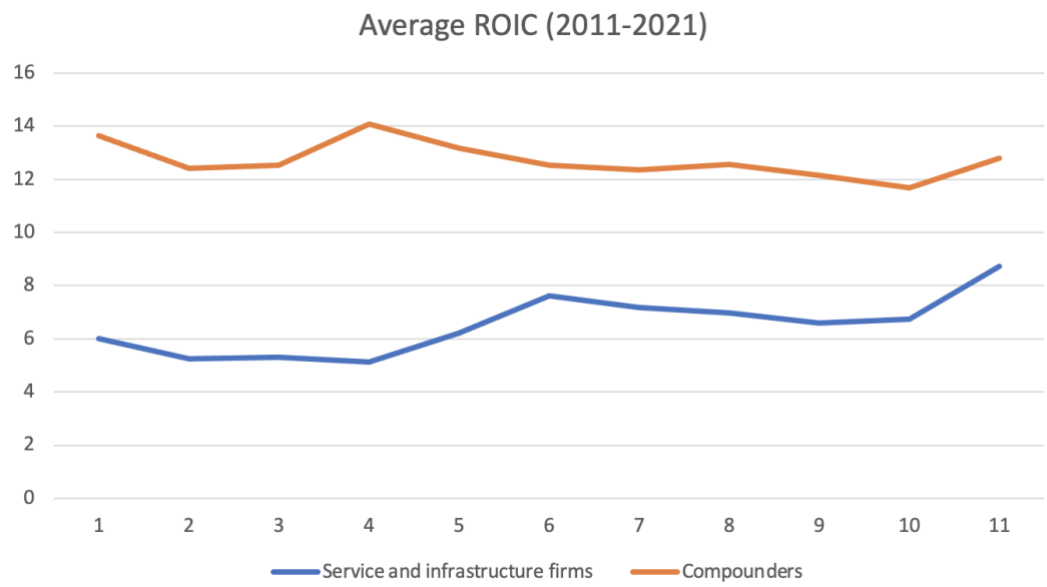

Illustration 4.4.3: *Average Return on Invested Capital (ROIC) for Service & Infrastructure- and Compounding firms in the final sample. All firms are listed and numbers are from 2011 to 2021.*

Illustration 4.4.3 displays the average return on invested capital (ROIC) for compounding firms and service/infrastructure firms in the Nordics, based on the final sample. The graph highlights that compounding firms consistently demonstrate higher ROIC than service/infrastructure firms over time. Although both groups experience fluctuations, compounding firms tend to experience the effects in their ROIC earlier than service/infrastructure firms. For instance, compounding firms witnessed an increase in 2014, followed by a proportional rise for service/infrastructure firms in 2016. However, it is worth noting that the COVID-19 pandemic had a similar impact on both groups, with all firms experiencing a clear impact. This data provides valuable insights into the varying performance and resilience of compounding firms and service/infrastructure firms in the Nordics.

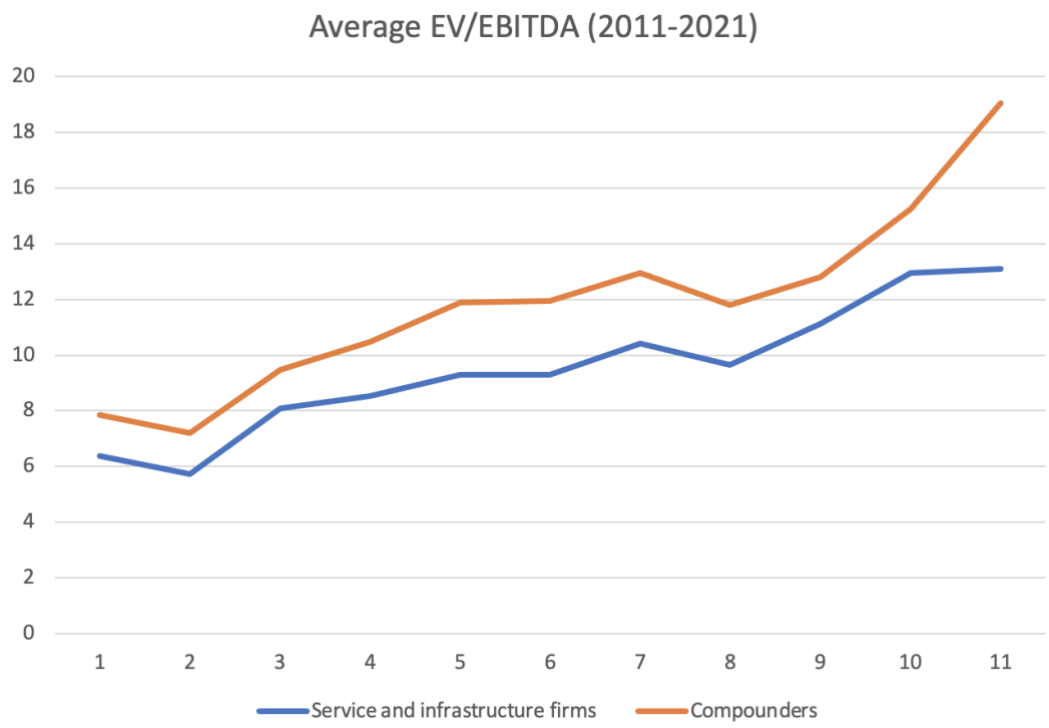

Illustration 4.4.4: *Average Enterprise Value (EV) over Earnings before Interest, Tax, Depreciation and Amortization (EBITDA) for Service & Infrastructure- and Compounding firms in the period 2011-2021. Numbers are from the final sample and all firms are listed in the Nordics.*

Illustration 4.4.4 shows EV/EBITDA multiples for Nordic firms in service, infrastructure, and compounding industries. The graphs reveal a rise in EV/EBITDA for all firms from 2011 to 2021. Compounding firms typically have higher EV/EBITDA than others. After the Covid-19 outbreak, compounding firms saw a greater increase in EV/EBITDA, leading to a significant difference in 2021. This analysis highlights the importance of EV/EBITDA multiples and offers insights into the Nordic market's dynamics.

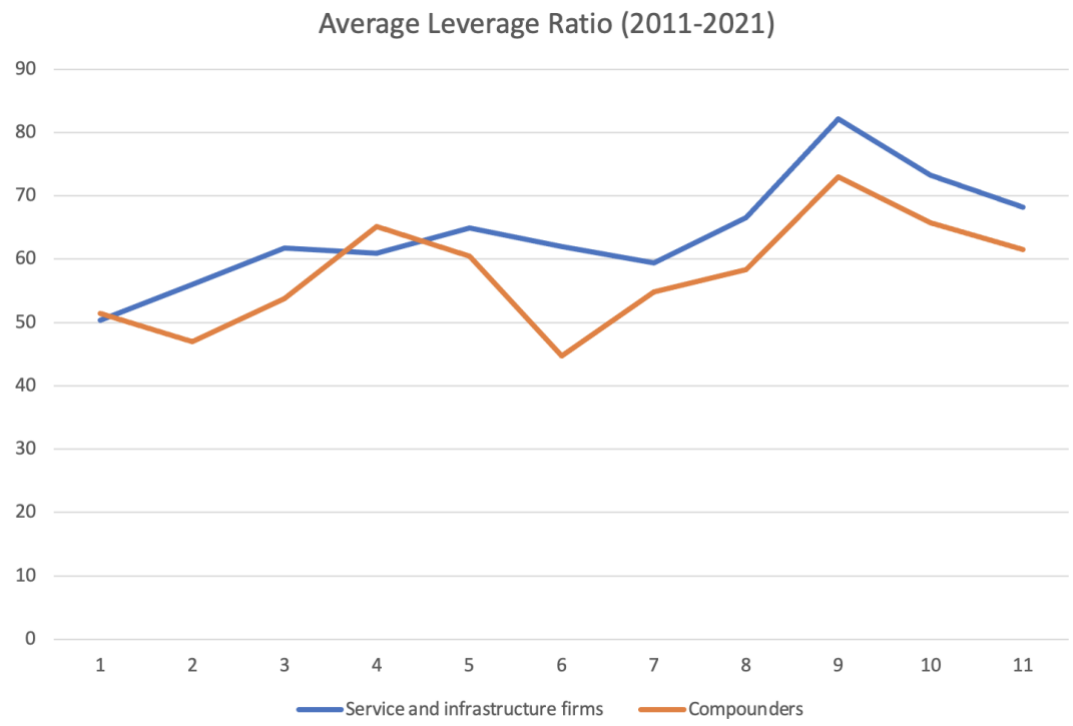

Illustration 4.4.5: Average Leverage Ratio for Service & Infrastructure- and Compounding firms in the period 2011 to 2021. All firms are listed in the Nordics and numbers are from the final sample.

Illustration 4.4.5 shows the average leverage ratios of service and infrastructure firms and compounders in our sample. When comparing the average leverage ratios of service and infrastructure firms versus compounding firms, the former had a higher ratio. Although compounding firms had a spike in 2014, the trend was generally the same for both groups. However, compounding firms had more fluctuations from 2013 to 2018. The Covid-19 pandemic had varying effects on share prices, but the leverage ratios were similar for both groups. In general, both groups' leverage ratios have increased from 2011 to 2021.

5. Model Estimation

The primary objective of our thesis is to examine the financial performance of compounders and investigate the reasons behind their superior share price returns when compared to other service and infrastructure companies. We seek to provide a thorough analysis of this phenomenon and shed light on the factors that contribute to the success of compounders in the market. Due to the research question being split in two, we have employed different approaches to find evidence for our claims. Therefore, we have split the quantitative part of the thesis in two, where the first one consists of a simple calculation of averages to see whether the initial claim of superior returns of compounders is correct. For this first part, we, therefore, ran averages on the finished data sample via the averages formula in Excel. Further, to answer the second part of our question of why these superior returns exist, we wanted to run regression analyses to see if we could identify some reasoning for our claim.

To reach our objective, we will run several statistical regressions to reject or keep our defined hypotheses. Because of the characteristics of our dataset, we will implement a panel data regression model. The financial values in our dataset are calculated over a period from 2011 to 2021 for compounders and other service and infrastructure firms, which means that our dataset consists of both time series and cross-sectional dimensions. Based on this, implementing a panel data regression model in our thesis will be appropriate.

When running regression analysis on data samples such as the one relevant to this thesis, there are certain issues that may result in inconsistencies of the data sample and, thus, also the wrong result. One of these is the issue of endogeneity. Parameter inconsistency is a direct result of endogeneity, which arises from the correlation between an exogenous variable and the error term. (Mitze, 2009, p.4). To address biased coefficient estimates, it is necessary to account for three types of endogeneity: *omitted variable bias, simultaneous endogeneity,* and *dynamic endogeneity* (Abdallah et al., 2015, p. 793).

5.2 Model

Deciding on the appropriate model to answer our research question includes making decisions related to factors that may disturb the output we are left with after having run our regression. The issue of endogeneity is an issue that may cause inconsistencies in our data, and thus needs to be dealt with properly (Ullah, Akhtar and Zaefarian, 2018, p. 69). Dealing with the endogeneity issue may be done through instrumental variables, where we want the output to be correlated with the independent variables rather than the error term (Woolridge, 2019, p. 495). However, for the purpose of our research question we find panel data to be the more relevant model to deal with the potential endogeneity problem. This is partly since finding further instrumental variables from our model is challenging. Mostly due to the lack of previous research and indicators of our study. Panel data have both time series and cross-sectional dimensions and allow us to control for time invariant unobserved effects and to eliminate the omitted variable bias, where the unobserved effects can be estimated through either random effects (RE) or fixed effects (FE) (Brooks, 2014, p. 528).

To decide between which one of the two would be more appropriate for panel data in terms of deciding between RE and FE, the standard procedure is to run a Hausman test (Arellano, 1993, p.87). The Hausman test may help to determine the appropriate model for a regression whilst also considering the issue of endogeneity. The hypothesis test based on the difference between RE and FE, where a rejection of the null hypothesis in the Hausman test indicates that the RE assumption is false and that FE should be used whilst not rejecting the null hypothesis indicates that RE should be used (Woolridge, 2019, p. 473). The findings from the Hausman test (see appendix 4.5) indicates that the null hypothesis should be rejected, and that the FE model is the appropriate model for our sample. This is due to the small p-value derived from the Hausman test stating that one of the models is inconsistent and that to obtain consistent estimates need to employ FE. However, considering that we are dealing with a time-invariant variable, namely the compounder dummy, would need to go for RE. This is because using FE tends to omit the time-invariant variables whilst they in a RE model will be kept, in addition to the fact that an RE model is also considered as

appropriate when we are working with randomly selected entities from the population (Brooks, 2014, p. 537). Both these features of the RE model are crucial for our sample.

Further, we use the Breusch-Pagan Lagrange-multiplier test (LM-test) to check whether we can use the RE modeling. The LM-test assesses the validity of a restricted model compared to a restricted model, and tests for the presence of serial correlation in regression models (Brooks, 2014, p. 687). Thus, it can be used to check whether the RE model is significant or not. Having run the LM-test on both the random effects vs. OLS and the fixed effects vs. OLS the results state that both are significant. Considering the attributes of the RE model and the missing attributes of the FE model in terms of our sample, the significance of the RE vs. OLS model confirms the appropriateness of RE for the purpose of our sample. Having taken the above-mentioned tests into account, therefore the conclusion lies with going for the RE, more specifically a two-way RE model, which leaves our regression line as follows:

$$Y_{it} = \beta_0 + \beta_1 COMPOUNDER_{it} + \beta_2 X_{it} + u_{it}$$

$$Y_{it} = \beta_0 + \beta_1 COMPOUNDER_{it} + \beta_2 X_{it} + \alpha_i + \varepsilon_{it}$$

Y_{it} represents the dependent variable of our regression, which in our case is the share price return of the companies in our sample. The independent variables captured in the $X_{it}$of the regression is as previously stated ROIC, EV/EBITDA and revenue growth, where our goal is to see whether these can explain the share price return of the different companies. Further, we have the compounder dummy stating 1 if the company is a compounder and 0 if it's a service and infrastructure firm. This dummy variable helps us to distinguish between compounders and service and infrastructure firms in a way that enables us to draw inferences from the independent variables onto the dependent variable, relative to the type of company. Considering that the broader purpose of our research question is to see if there is evidence of compounders outperforming, supporting the claim made by

Arkwright, including this dummy variable is crucial. Lastly, we have the composite error term u_{it}, more specifically written as $\alpha_i + \varepsilon_{it}$ where α represents the unobserved effects and ε represents the error term.

Considering the error term, the RE assumptions for the model states that the independent variables are uncorrelated with the composite error term (u_{it}) (Brooks, 2014, p.537). This indicates that the pooled OLS will provide consistent but inefficient estimates, meaning that the standard errors will need to be adjusted. Thus, to avoid serial correlation in the composite error term we need to use generalized least squares (GLS) to achieve efficiency in our estimates (Woolridge, 2019, p. 275). Thus, using the GLS estimator we will have more efficient estimates. Further, running this regression as a simple pooled regression assumes no heterogeneity, meaning that we assume that the same relationship holds for all data (Brooks, 2014, 552). Assuming no heterogeneity suggests that there is no variability in the data, and thus may leave us with a somewhat distorted result. To mitigate this, we have added time-fixed effects that will enable us to account for potential unexpected variations (Brooks, 2014, p. 694).

5.2 Testing for robustness

To ensure accuracy and account for external factors, we added company age and size as supplementary variables in our model. This helps to reduce the risk of errors and maintain academic precision. We also conducted a regression analysis on an unadjusted dataset and the winsorized dataset to ensure no effects were overlooked. The latter part is important due to compounders' tendency to outperform and thus increase the probability of outliers.

5.3 Results

The regression analysis was conducted in accordance with the methodology section, utilizing outputs from the winsorized data sets both with and without control variables, as well as the non-winsorized data set. These regressions were

performed for compounding firms, service and infrastructure firms, and all firms. In addition, to bolster the qualitative arguments presented in this thesis, we conducted an interview with the director of M&A at Visma. The results of our analysis and the insights gathered from the interview provide valuable contributions to the academic discourse on mergers and acquisitions.

5.3.1 Qualitative results: Insights from Stian Berg

During our interview with Stian Berg, we gained invaluable insights from someone actively engaged in this field. Berg emphasized the importance of autonomy and independence to achieve success in their field. Possessing robust in-house expertise is also significant for increased efficiency and reduced external expenditures. Recurrent acquisitions streamline the acquisition process, resulting in expedited and smoother operations, enhancing the quality and timeliness of outcomes.

5.3.2 Quantitative results

The compounder dummy does not have a significant impact on explaining share price return for all firms. In the Winsorized data shown in *table 5.3.2.1*, the estimated effect of compounding firms on share price return is negative (-4,0936e-03), indicating that compounding firms do not have a statistically significant impact on share price return. However, in the regression using not adjusted data shown in *table 5.3.2.3*, the compounder dummy for all firms' data is statistically significant at a 0.05 level, with an estimated positive effect of 3,1379e-01. This suggests that there is a positive statistically significant impact of compounders on share price return. Based on the characteristics of compounds described in *Part 2 of the Literature Review and Theoretical Framework*, we have chosen to conclude that compounding firms achieve a significantly higher share price return compared to other service and infrastructure firms, using the result from the regression using not adjusted data. This conclusion is further supported by the general average of share price return for the different groups of firms in our

untreated data sample, where the large fluctuations in data for compounding firms are not adjusted for.

5.3.2.1 Winsorized data

The Return on Invested Capital (ROIC) is statistically significant for all firms, regardless of their group, at a 0.001 level, indicating a positive correlation with share price return. However, for compounding firms, ROIC is not statistically significant, meaning there is no evidence to suggest that it has a significant impact on their share price return. This suggests that the positive effect of ROIC is mainly driven by service and infrastructure firms, as ROIC for these firms is statistically significant at a 0.001 level with an estimated positive effect of 0,00844078. Therefore, ROIC cannot explain why compounding firms have a significantly higher share price return compared to other service and infrastructure firms.

On the other hand, the EV/EBITDA variable has a more consistent pattern in the results. It is statistically significant for all firms, compounding firms, and service and infrastructure firms at a 0.001 level, indicating a positive correlation with share price return. The estimated positive effects of EV/EBITDA on share price return are strongest for compounding firms, suggesting that this multiple can explain why they have a significantly higher share price return compared to other service and infrastructure firms.

The same applies for the independent variable of revenue growth. The statistical significance of revenue growth on share price return is consistent across all firms, with a positive correlation found on a 0.001 level. The effect of revenue growth is estimated at 0.52751 for all firms and is statistically significant at the same level for compounding firms and service and infrastructure firms. This indicates that revenue growth has a positive impact on share price return, regardless of firm grouping. However, the strongest positive effect of revenue growth on share price

return is seen in compounding firms, which may explain why they see higher returns compared to other service and infrastructure firms.

The leverage ratio variable does not show any statistically significant results for all firms, service and infrastructure firms, or compounding firms. Both service and infrastructure firms, as well as all firms, have a negative estimated effect of -0,00011448 and -2,9808e-05 respectively, which is not statistically significant. On the other hand, compounding firms have an estimated positive effect of 0,00005083, which is also not statistically significant. In summary, these findings suggest that the leverage ratio alone is not enough to explain the return on share prices.

Table 5.3.2.1 Winsorized data

	Service and infrastructure firms	Compounding firms	All firms
Intercept	-0,01639094 (0,02145588)	-0,17041061 ** (0,05252699)	-3,7442e-02 . (1.9923e-02)
ROIC	0,00844078 *** (0,00118291)	0,00027647 (0,00226855)	7,1845e-03 *** (1.0635e-03)
EV/EBITDA	0,00730381 *** (0,00126458)	0,02579159 *** (0,00325401)	9,4467e-03 *** (1.1785e-03)
Revenue Growth	0,49040590 *** (0,06282811)	0,59386642 *** (0,15443186)	5,2751e-01 *** (5.8365e-02)
Leverage Ratio	-0,00011448 (0,00014923)	0,00005083 (0,00045262)	-2,9808e-05 (1,4110e-04)
Compounder dummy			-4,0936e-03 (2,4244e-02)
R-squared No. of observations Nr. of firms	0,16398 5916 111	0,34998 1243 24	0,1796 8721 135

5.3.2.2 Robustness test: firm size and firm age

To further validate our regression analysis, we conducted a robustness test on our winsorized data. To achieve this, we included two additional control variables, namely firm size, and firm age, to assess their impact on the model. Our aim was to determine whether the age of a firm, which could provide competitive advantages over time, would affect the analysis results.

Upon analyzing the results, we found that the inclusion of these variables had minimal impact on our primary independent variables. Although the intercept of all firms lost statistical significance at a 0.1 level, and the intercept of compounding firms lost statistical significance at a 0.01 level but gained it at a 0.05 level, the compounding dummy variable for all firms remained non-statistically significant. However, the goodness of fit of all three models improved. The R-squared increased from 0.1796 to 0.1815 for all firms, from 0.34998 to 0.35727 for compounding firms, and from 0.16398 to 0.1657 for service and infrastructure firms.

As there were no significant changes to the independent variables, we focused our interpretation on the two new control variables. Our analysis showed a negative correlation between firm size and share price return, although this relationship was not statistically significant across any of the three firm groupings. Therefore, our results do not provide a basis for explaining share price return based on firm size. However, as our data set was limited to compounding firms in the Nordics, we suggest investigating the impact of firm size on share price return with a larger sample size of compounding firms in Europe or globally in future research.

Similarly, firm age was found to be negatively related to share price return. The estimated negative effect was -2,1307e-04, -2,0102e-04, and -2,1033e-04 for all firms, compounding firms, and service and infrastructure firms, respectively. However, none of these estimates were statistically significant, indicating that we cannot explain share price return based on firm age. Therefore, we recommend further research to examine the effect of firm age on share price return for a larger sample of compounding firms.

Overall, our findings suggest that the inclusion of firm size and firm age as control variables has not significantly altered the results of our regression analysis. Nonetheless, our analysis has provided some valuable insights into the potential impact of these variables on share price return. Future research should

aim to replicate these findings using larger and more diverse samples of compounding firms.

Illustration 5.3.2.2 Winsorized data with robustness test variables

	Service and infrastructure firms	Compounding firms	All firms
Intercept	5,3796e-03 (2,6806e-02)	-1,4346e-01 * (5,8465e-02)	-1,5232e-02 (2,4464e-02)
ROIC	8,4839e-03 *** (1,1876e-03)	8,4413e-04 (2,2982e-03)	7,2854e-03 *** (1,0678e-03)
EV/EBITDA	7,2783e-03*** (1,2652e-03)	2,6547e-02 *** (3,2886e-03)	9,4555e-03 *** (1,1784e-03)
Revenue Growth	4,7743e-01 *** (6,3496e-02)	5,5029e-01 *** (1,5863e-01)	5,1221e-01 *** (5,9053e-02)
Leverage Ratio	-1,1595e-04 (1,5003e-04)	3,0661e-05 (4,5229e-04)	-2,9788e-05 (1,4168e-04)
Compounder dummy			-3,2634e-03 (2,4241e-02)
Firm Size	-5,4815e-07 (8,3479e-07)	-2,4504e-06 (1.8748e-06)	-6,6006e-07 (7,6929e-07)
Firm Age	-2,1033e-04 (1,9542e-04)	-2,0102e-04 (4,0800e-04)	-2,1307e-04 (1,7797e-04)
R-squared No. of observations Nr. of firms	0,1657 8512 111	0,35727 1771 24	0,18151 11845 135

5.3.2.3 Robustness test: Not adjusted data

In order to evaluate the high-growth characteristic of compounders and their superior return, a robustness test was conducted on the data prior to winsorization. The technique of winsorization involves eliminating potential outliers in the dataset and replacing them with the highest value within the 95% interval. However, this method may cause the extreme effects of the selected compounders to diminish, resulting in a potential loss of the effect being sought, particularly with a limited sample size. Therefore, an investigation was carried out to determine whether the recommended effect and the original effect presented via the Arkwright sample would disappear.

Upon analyzing the data presented in Table 5.3.2.3 Not adjusted data below, it was discovered that the compounder dummy in the pre-winsorized dataset is significant at a 0.05 level, indicating that being a compounder has a notable effect on the share price return. This outcome confirms Arkwright's initial claims and implies that winsorizing the dataset removes the extremes that are a characteristic of compounders. Additionally, a significantly higher R-squared was observed for the compounder sample in the pre-winsorized set compared to the winsorized one, indicating that the model for the compounder sample explains the data to a greater extent than the winsorized data does. However, this R-squared decreases in the pre-winsorized sample when it comes to the control sample of service and infrastructure firms, further supporting the notion that winsorizing reduces some of the primary features of compounders.

Further, after analyzing the ROIC data, it is clear that it has a significant impact on the service and infrastructure firms on a 0.001 level, but not on the compounders. This suggests that ROIC does not explain the share price return for the compounder sample but does explain it for the service and infrastructure firms. This result is similar to the winsorized data, except for the significance level of ROIC. The pre-winsorized data has a smaller explanatory effect compared to the winsorized data. However, we are still unable to link the significant share price

return of compounders to ROIC, which is similar to the results from the winsorized data.

Moving on to the independent variable of the EV/EBITDA multiple we can from the table see that the EV/EBITDA multiple is significant on a 0,001 level for the compounders in the pre-winsorized dataset, meaning that the EV/EBITDA multiple in fact has explanatory power of the share price return of compounder. More specifically considering the positive number of 2,1916e-05 we have a relationship of when the EV/EBITDA multiple increases so does the share price return. This is coherent with the significance level found from the winsorized data. The pre-winsorized data does however differ in the fact that we in the winsorized data found the EV/EBITDA multiple to be significant on both the service and infrastructure firms, the compounders, and all firms. The reason behind this change may be due to the fact that in addition to removing the 95% highest values, winsorizing the data also remove the 95% bottom outliers, suggesting that our control sample of service and infrastructure firms may in fact a tendency of outliers of the bottom which when we do not winsorize will appear in our sample and reduce the significance of that exact group.

Looking at the revenue growth, which is captured by our third and last hypothesis for this thesis, it is evident that this too is significant for the compounder sample but not the control sample of the service and infrastructure firms. Comparing these results to the winsorized dataset we can see that revenue growth was significant on a 0,001 level for both the compounder sample and the service and infrastructure sample, in addition to being significant for the “all firms” sample. Proving no change for the compounder sample, but that winsorizing the data made the control sample significant. Similar to the results from EV/EBITDA above, the change in significance on the control sample may again be due to the fact that we have remove the bottom outliers in the winsorized set and thus having them in the sample of the pre-winsorized set may therefore have reduced it’s significance and the explanatory power it has on the share price return. From this we may infer that revenue growth is an explanatory variable for the share price return of the compounder sample, both when winsorized and when not winsorized.

In analyzing the EV/EBITDA multiple as an independent variable, we observe that it holds significant explanatory power over the share price return of compounders in the pre-winsorized dataset. The positive number of 2.1916e-05 indicates that an increase in the EV/EBITDA multiple leads to a rise in the share price return, which aligns with the findings from the winsorized data. However, we note that the pre-winsorized data shows a difference in significance for service and infrastructure firms compared to the winsorized data. This difference may be due to the removal of bottom outliers in the winsorized data, which affected the control sample.

Regarding revenue growth, our third hypothesis, we find it to be significant for the compounder sample but not for the control sample of service and infrastructure firms in the pre-winsorized dataset. The winsorized dataset, on the other hand, shows that revenue growth is significant for both samples and all firms. This suggests that revenue growth is an explanatory variable for the share price return of compounders, regardless of winsorization. The change in significance for the control sample in the winsorized data may again be attributed to the removal of bottom outliers, which affected the pre-winsorized data's significance.

Finally, in relation to the leverage ratio, it is clear that, like with the winsorized data, the leverage ratio does not seem to have a significant impact. However, what differs is that the leverage ratio in the pre-winsorized data appears to have a negative correlation with the share price return for the compounder sample. This means that when the leverage ratio decreases, the share price return increases. This negative relationship is expected and consistent with the pecking order theory explained in section 4.3.2.5.

Table 5.3.2.3: Not adjusted data

	Service and infrastructure firms	Compounding firms	All firms
Intercept	0,15930920 *** (0,03042815)	-1,6436e-01 *** (4,9942e-02)	9,0269e-02 (7,0467e-02)
ROIC	0,00624044 *** (0,00137210)	3,4577e-05 (7,4722e-04)	4,2855e-03 . (2,5519e-03)
EV/EBITDA	-0,00018761 (0,00035056)	2,1916e-02 *** (3,5103e-03)	1.2092e-03 (8,3801e-04)
Revenue Growth	0,00797049 (0,00697147)	1,1996e+00 *** (8,8457e-03)	2,4120e-01 *** (1,5033e-02)
Leverage Ratio	0,00018763 . (0,00011295)	-1,9343e-05 (7,9880e-05	5,2265e-05 (2,3166e-04)
Compounder dummy			3,1379e-01 * (1,4968e-01)
R-squared No. of observations Nr. of firms	0,024455 5916 111	0,99459 1243 24	0,18085 8721 135

5.3.3 Summary of results

The overall results of the regression analysis reveal that the EV/EBITDA multiple and revenue growth are the independent variables that exhibit the most significant impact on the share price return for compounders in the sample. This trend was evident in both the winsorized and pre-winsorized data, with a statistical significance level of 0.001. However, the significance levels for the control sample and all firms section varied.

In terms of ROIC, the study discovered that it had an impact on share price return in the winsorized dataset and the control group, but not in the compounder group. This implies that ROIC possesses some explanatory power to share price return in general, but it cannot be inferred to have any impact on the research question at hand. Moreover, the research found that the independent variables of leverage ratio, firm size, and firm age had minimal impact on share price return. These outcomes disprove the initial hypothesis that these variables would alone significantly impact share price return.

Finally, the study compared the significance of the compounder dummy in the winsorized and pre-winsorized data sets. The pre-winsorized dataset was included to examine if winsorizing would deflate the effect of the compounders on the dataset. The pre-winsorized dataset provided evidence for the initial claims and Arkwright's.

6. Discussion

The purpose of this discussion is to analyze the results of our regression analyses using various theories presented in the preliminary section of this paper, which include acquisitions, diversification, TSR, and behavioral finance. Our goal is to utilize these theories to explain the effects discovered in our regression. Additionally, we will refer to an interview with Stian Berg from the M&A department of Visma (see appendix 3) to get an insight into the outperformance of compounders.

Our research question is divided into two parts. The first part aims to determine whether compounders achieve a significantly higher share price return in comparison to other service and infrastructure firms. Our analysis confirms that compounders have a significantly higher share price return than their control sample. This calculation is based on a simple average of the share price in our sample, which was replicated and further developed from initial Arkwright research. We did not use the winsorized dataset for this claim, as it diminishes the significantly high returns we are investigating due to the effect of outliers. Although we recognize the importance of winsorizing the dataset in data handling, compounders tend to have significantly higher returns and bigger fluctuations than most companies. Therefore, we believe that winsorizing the dataset to a greater extent will reduce the unique effect that makes compounders special. Hence, our claim is based on raw data pre-winsorization.

Regarding the second part of our research question, which aims to explain why compounders obtain this high return, we need to conduct a more complex analysis than the first part. This is where our regressions come in, and we employ both a quantitative and a qualitative approach to answer this question. We reintroduce our hypothesis presented in section 3.1 to start this part of our analysis.

6.1 H1

The first hypothesis of this thesis suggests that Compounders achieve better share price returns due to their competitive advantage over other service and infrastructure firms. To further explore this idea, we will refer to an interview with Stian Berg, the M&A director of Visma Group, and relevant theories on why conglomerates sometimes fail. The interview can be found in Appendix 3.

Throughout the interview and preceding discussions with Stian, a prominent factor for the success of a compounder was consistently emphasized: the provision of autonomous control to the acquired firm prior to and during the acquisition process. The term "as is" was frequently employed to refer to this aspect of autonomy, underscoring the notion that the acquired firm should be afforded the freedom to operate independently.

> *"...Every acquired firm keeps going as-is. More or less as an independent firm. And that is what I believe is the single most important thing in the acquisition phase that leaves us with a competitive advantage."*

Further, it was specified that, if possible, they, as acquirers, want to keep the company as they were before the acquisition as the company, at the end of the day, knows best. Researchers have found the importance of autonomy in an acquisition process to be highly valuable when it comes to M&A processes. Zhu, Xia and Makino (2015), for instance, found through their analysis of cross-border mergers and acquisitions that autonomy proved to be important in order to achieve effective implementation after acquisition. Further, they also stated that integration, on the other hand, in fact, had a higher risk of resistance. Arguments that are in alignment with the claims made by Berg. It should be mentioned that the evidence from Zhu, Xia and Makino was a study of cross-border mergers and that this, therefore, may vary for mergers within a country or region like the ones we look at in this thesis.

Zhu, Xia and Makino (2015) also posed the fact that related mergers, more specifically mergers that happened in areas of businesses that are relevant towards each other, are more likely to succeed compared to unrelated mergers. Sloan (2021) made a similar claim when he stated the fact that limited M&A strategies were more likely to succeed than those that did not limit their strategy. From this, one may draw lines between a more focused approach for M&A and the value creation from the M&A activities, and thus also claim that there is a competitive advantage in keeping a more focused strategy. This again aligns with the traits of compounders. It was also mentioned in the interview that their speciality enables them to make fast decisions given their knowledge of the area of business and specifically working in that field. However, this claim contradicts previous arguments of the lack of value creation linked with M&A activities, where the primary argument lies with evidence that there is no clear evidence of the numerical success of M&A, linking it all back to the M&A paradox. Then again, with the evidence of their significant return compared to other service and infrastructure firms that we are looking at here, there seems to be evidence that argues against the M&A paradox, where one thus may argue that there are certain differences outside of financials that explain why some succeed and others do not. This again was suggested by Kavanaugh and Ashkanasy (2006), attributing the success of M&A activities to relations outside of the financial metrics. Thus, the more specified strategy of M&A may be argued to be a competitive advantage of compounders and may be useful when considering why they are successful.

Considering the above-mentioned claim of compounders' competitive advantage in terms of autonomy and limited M&A strategies, we have chosen to draw a parallel between compounders and conglomerates based on the definition of conglomerates. This is to see whether one can make inferences on compounders' superior return. Contrary to compounders, conglomerates do not practice a limited acquisition strategy but rather a broader strategy where there tend to be mixed business areas in different industries. Similarly to compounders, conglomerates practice a more autonomous and independent governing but differ in the speciality domain of their business. Linking this up with the literature review,

conglomerates are as previously stated considered to engage in diversification in a different way compared to compounders. Research on conglomerates and their performance tend to vary, where some argue for their success others argue for their failure and tendency to perform poorly in the long run. In terms of success, one of the recurring arguments is based on the diversification a conglomerate has and the fact that they, therefore, can hedge themselves in case of natural fluctuations and thus protect their shareholders (Klein, 2001). Having said that, with this direct diversification technique, evidence has as previously mentioned, suggested a negative relationship between value and diversification (Klein, 2021), suggesting that the diversification technique practiced by conglomerates essentially cannot be considered efficient. Further, others also argue that the breadth in for instance financial conglomerates destroy their competitive position and shareholder value mainly due to conglomerate discounts (Schmid and Walter, 2007).

One may argue that conglomerates diversification and thus assumes lack of specialty may in fact result in struggling to capture the synergies from their activities. Comparing this to compounders, it has been argued that the compounders more specified strategy enables them to capture synergies and enable the growth of their company successfully. Comparing the two, one may argue that the compounder's competitive advantage of their focused strategy is one of their main competitive advantages and may be why they perform well. Having said that, this thesis looks at why compounders produce a significantly higher return compared to other service and infrastructure firms which essentially does not include the argument of conglomerates' performance. However, highlighting what makes the two relatively similar business strategies of conglomerates and compounders helps us point to what traits of compounders help their performance. Thus, it should be included when looking at their competitive advantage.

Finally, when it comes to discussing the potential competitive advantages of compounders compared to other service and infrastructure firms, we want to look further into the strong in-house competence that Berg mentioned to be another

reason why Visma has succeeded. Visma has built its in-house competence by acquiring tech firms with specific technology and has, with that limited strategy, been able to build a firm where close to every service offered and needed within that specific area of business is covered through their own firm via different service lines. Thus, they can operate the firm, make offers, and further develop it more efficiently. Considering that compounders, in general, are firms that frequently acquire areas within a specific area of business, one may argue for compounders efficiency with the base of the argument in Visma's strategy. This again links the efficiency of a limited acquisition strategy that by several researchers has been pointed as one of the better predictors of acquisition success, and thus we therefore argue that limiting their strategy and building strong in-house competence is a competitive advantage for compounders. This in contrast to what we in our sample have defined as other service and infrastructure firms, where these, to a greater extent, is dependent on services independent of their own firm.

6.2 H2

According to our second hypothesis, compounders generate a higher share price return than other service and infrastructure firms because they create more value from their investments. After reviewing relevant literature, we determined that ROIC is the best way to measure this value creation. Our findings indicate that ROIC is not statistically significant for compounding firms but is statistically significant with 99.9% certainty for service and infrastructure firms.

Studies indicate that compounding firms benefit from certain financial qualities, including a high ROIC that strengthens their financial position through intangible assets. ROIC, alongside other factors, lead to strong free cash flow that can be reinvested or distributed to shareholders (Paulson & Derold, 2015). Further, an article published by Morgan Stanley states that firms with high ROIC on average are better at doing solid and successful M&A deals (Mauboussin and Callahan, 2022). Summarized, ROIC should, according to empirical studies, be statistically significant on share price return. However, with respect to our results, this is

contradictory as ROIC is unable to explain the higher share price returns of compounders compared to other service and infrastructure firms. Based on strong previous research showing a statistical significance between ROIC and share price return, it is important to examine socio-economic conditions in recent years more closely.

One of these factors is COVID-19. The COVID-19 pandemic significantly negatively impacted the global economy in 2020, resulting in the loss of 255 million full-time jobs worth of working hours. This impact was particularly pronounced in Europe, where the highest losses were experienced (Jackson et al., 2021, p.14). In the wake of COVID-19, the War in Ukraine has caused a slower economic recovery from the pandemic and slowed economic growth in 2022. With an estimated economic growth of around 5 percent in 2022, the war contributed to an actual growth of 3,1 percent (Jenkins, 2023). In times of global uncertainty, companies may become more cautious with their investments, leading to a decrease in ROIC for compounding firms that frequently engage in M&A activities. This decline may be even greater for compounding firms since they rely on acquisitions for their livelihood. However, our data sample only includes a few years after the start of COVID-19, so the pre-crisis data is still more reliable. Therefore, we cannot conclude that only the years after 2019 are responsible for the non-significant ROIC for compounding firms.

Linking this back to the interview with Stian Berg (see appendix 3), Visma has in recent years chosen to move away from valuation using ROIC to focus more on EV/EBITDA multiple. This differs from previous practice, where growth to value has been appreciated as a sign of the success. Value to growth has in the recent years been valued to a greater extent. Thus, the enterprise multiple of EV/EBITDA is used to a greater extent, supported by Berg's claim. The use of EV/EBITDA is covered in the third hypothesis and will be covered more thoroughly in the following section.

6.3 H3

The third hypothesis of this thesis suggests that compounders receive a better share price return compared to other service and infrastructure firms due to the advantages of stable and consistent revenue growth. EV/EBITDA has become a popular valuation multiple in recent years because it considers the enterprise value and debt of the company in question (Hayes, 2022). Researchers have also found that M&A activity can benefit enterprise value (Sloan, 2021). As stated by Stian Berg from Visma (refer to appendix 3), EV/EBITDA is their most frequently used multiple for valuing a company as it indicates the current and near-future performance of the company. Revenue growth is the driving force behind EV/EBITDA, especially for compounders. Therefore, the discussion of this hypothesis is divided into two parts - Revenue growth and EV/EBITDA - both of which can help answer the hypothesis.

6.3.1 Revenue growth

From the results we found that revenue growth was statistically significant for both compounders and service and infrastructure firms on a 0,001 level, meaning that we, with 99,9% certainty can conclude that revenue growth positively influences share price return. However, the compounders' positive estimated effect is higher than service and infrastructure firms. From this, we can conclude that revenue growth can explain why compounding firms obtain a significantly higher share price return compared to other service and infrastructure firms, and we have found support for this hypothesis.

The previously mentioned study published by Sloan from EY Parthenon revealed that M&A activities with a clear strategy tend to lead to faster growth than those without limitations (Sloan, 2021). Considering these findings, it is worth mentioning the somewhat less focused strategy of conglomerates compared to that of compounders. Further, it is worth mentioning the concept of conglomerates' tendency to purchase lower-value firms due to a lack of clear M&A strategy, resulting in a conglomerate discount. Looking at compounders, their regularity

tend to leave them with an upper hand over other service and infrastructure firms because they rely heavily on a clear strategy. This means that compounders are likely to experience higher revenue growth from M&A activities than other service and infrastructure firms due to their clear strategy.

Contrary to the assumptions related to the metric of revenue growth, we found statistical significance for both groups on a 0,001 level. A result that clearly shows that revenue growth strongly impacts share price return for both our compounder and our control group. It is important to state that there is not an absolute relation between our control group and conglomerates, however, our control group does capture conglomerates as well. Thus, one may assume there to be differences in the two groups that may be tied to the differences between compounders and conglomerates. Having said that, the significance of both groups implies that a clear M&A strategy will not necessarily be the answer to a strong share price return. However, with a restricted final data sample, even small differences can have great explanatory power and should receive attention.

6.3.2 EV/EBITDA

Regarding EV/EBITDA, it was found to be significant on a 0,001 level for both compounders and service and infrastructure firms. Presenting a positive relationship between EV/EBITDA and the share price returns of both groups. Having said that, the positive effect is found to be of greater strength for compounding firms which further suggest that EV/EBITDA may be able to explain some of the reason why compounding firms obtain a significantly higher share price return compared to other service and infrastructure firms. This, together with the results from revenue growth, contribute to our claim of having found support for hypothesis three.

Sloan (2021) suggests that M&A activity can benefit enterprise value if it is done correctly. Further, a strong enterprise value can also contribute to a strong EV/EBITDA multiple. In terms of revenue growth, firms that are compounders

may benefit from a more thorough due diligence process, which can lead to a stronger EV/EBITDA multiple and potentially higher share prices. Compounders often have high growth potential and can consistently achieve growth, which are factors that drive EV/EBITDA and contribute to the multiple's strength over time. Investors seem to value compounders based on their earning potential, which makes them highly attractive to stakeholders.

In comparison to other service and infrastructure firms, compounders tend to be less affected when it comes to market fluctuations and volatility. This is due to their strong fundamentals, making them more resilient in the face of economic changes. As a result, investing in compounders is often seen as less risky and more attractive to potential investors than investing in other companies. This market preference for compounders leads to higher earnings valuations and stronger growth expectations, ultimately resulting in a higher EV/EBITDA multiple. Hence, understanding EV/EBITDA is crucial in explaining the share price return.

Yet, EV/EBITDA has some problematic aspects that can mislead investors by overlooking actual costs associated with running a business. Depreciation and amortization must be replaced with capital expenditures to stay afloat. Moreover, enterprise value fails to consider real liabilities, while EBITDA does not account for varying tax rates across industries and locations (Trainer, 2019). The correlation between share price return and EV/EBITDA is intricate, and this thesis assumes that all other factors, such as macroeconomic conditions or industry-specific dynamics, remain constant despite the compounder dummy. Hence, it is a drawback that EV/EBITDA also excludes industry-specific tax rates, and it is crucial to include discussions related to socio-economic factors when determining the conclusion.

Regarding the criticism of EV/EBITDA for not considering external factors, it is relevant to discuss the implications of behavioral finance. Behavioral finance and

M&A are interconnected, and behavioral finance is often associated with the theory of rationality, which assumes that all investors are rational. This theory has been criticized. As M&A is run by humans, rationality becomes a relevant issue. Evidence suggests that investors tend to be overconfident and overestimate the value of their target in M&A. Therefore, this may explain the varying opinions on the success of M&A. However, considering the success of compounders, one may argue that investor confidence can be advantageous for firms with a more limited investment strategy. Thus, behavioral finance and the theory of rationality can explain the outperformance of compounders, which goes against the efficient market hypothesis.

6.4 Implications

Considering the lack of research on compounders and particularly their seemingly superior returns, this thesis contributes to novel research in a field with untapped potential. In terms of the field of research, this thesis creates a foundation for digging deeper into an interesting field that is impacted by a variety of forces from both a macro- and microeconomic perspective. For investors and other private equity companies, this thesis may contribute with both an identification of the potential but also an explanation as to why. Lastly, looking at it from a manager's perspective the thesis may be able to identify some indicators of success for their strategies that they may be able to further make use of when managing their firms in the future.

The greatest contribution however lies with the research field, as the topic as previously mentioned is lacking data and has a great deal of potential. For the purpose of research, it also challenges the efficient market hypothesis.

6.5 Limitations

This master thesis aims to explain why compounding firms obtain a significantly higher share price return compared to other service and infrastructure firms. The selection of compounders is restricted to listed companies in the Nordics. The data material is extremely limited for this group of companies as the number of

compounders in the Nordics is relatively low together with the requirement of being listed. This has led to the number of observations for compounders being restricted in our final data sample. For our winsorized data sample lack of observations has contributed to the compounder dummy being not statistically significant despite average of share price return on the unprocessed data showing a positive significant difference in favor of compounding firms. This change in statistical significance for the compounder dummy may be justified in the characteristics of compounding firms with superior returns and large fluctuations. The more compounding firms one adds in the data sample the 95th percentile may be better adjusted for outperforming compounders making the difference between the 95th percentile and their superior returns smaller. In this way we believe that the compounder dummy may be significant even for the winsorized data sample.

The lack of data material for listed compounding firms in the Nordics might further contribute to biased results in which the gap between data for compounding firms and other service and infrastructure firms is significantly high. Based on this, our master thesis should not be seen as a fully developed study of why compounding firms obtain significantly higher share price return compared to other service and infrastructure firms, but rather a contribution to further research including compounding firms from Europe or all over the world. However, we have carefully put together a control sample consisting of service and infrastructure firms which operate within the same industry as our compounders to get the most realistic result possible. Furthermore, we have adjusted for three forms of endogeneity to carefully handle the problem of endogeneity. This makes us sure that the results are credible and reliable for further research.

This thesis also has weaknesses in that the qualitative results are conducted from interviews with Visma AS, which is not a listed company in the Nordics. Companies that are not listed do not have an obligation to publish data to the same extent as listed companies. Furthermore, this results in a lack of data from Visma AS in our final data sample. This implies that the qualitative results not directly can be connected to the quantitative results. Nevertheless, we consider Visma to

be one of the strongest and most influential compounders in the Nordics which further makes us confident that they are representative of listed compounders in the Nordics.

6.6 Future Research

Compounding firms tends to obtain superior return compared to other service and infrastructure firms, something that we, together with Arkwright and Visma, have tried to find a clear answer to in this master thesis. However, the topic is complex and relies, in addition to economic factors, on socio-economic factors that are not covered in our final data sample. With this in mind, we have carried out interviews with Stian Berg, Director of M&A in Visma Group to supplement our numerical findings. This has added aspects to the discussion of the research question that is beyond pure numerical data, something that also Stian Berg claims to be crucial when it comes to explaining the superior return of compounders. Having said that, our interviews are of a smaller scale and we therefore recommend conducting several interviews with compounders who are listed in the Nordics to target the interview more towards the final data sample.

Furthermore, we would suggest running more regressions using other dependent variables as definitions of return, such as EV/EBITDA and TSR. By comparing regressions with different dependent variables illustrating returns, one will be able to compare the statistically significant impact of the various independent variables from each regression. Having said that, share price return as a component of TSR together with dividend yield which we have found to be almost equal for compounders and service and infrastructure firms. Based on that we concluded that share price return was the most favorable dependent variable for this master thesis. However, comparing several regressions on different dependent variables of return may contribute to a more thorough discussion which in turn may result in a more representative conclusion.

7. Conclusion

Due to lack of existing literature and research on the topic of compounders, in addition to recent discoveries of compounders tendencies to outperform, this thesis aims to explain why these compounding firms obtain significantly higher share price return compared to other service and infrastructure firms. To do so we built on the initial sample received from Arkwright Consulting AS consisting of listed firms, both compounders and other service and infrastructure firms, located in the Nordics. We chose to continue down this path and added more firms to strengthen the sample, but particularly the control sample. Our intention was to firstly identify if this gap exists, and secondly to find plausible reasons as to why. It is evident that compounders do in fact obtain greater share price return compared to other service and infrastructure firms. This is in coherence with the initial statement and was calculated by simply running an average on the raw dataset.

A compounder's business model is to frequently engage in acquisition, where they typically are characterized by strong revenue growth and superior risk-adjusted returns. Thus, the first hypothesis captures the competitive advantages of a compounder compared to other service and infrastructure firms. This more qualitative twist on the thesis covers a somewhat different angle compared to the other more quantitative models of explanation. The interview that was conducted in relation to this thesis explains from a compounders perspective why they believe they succeed and promote the aspects such as autonomy and inhouse competence as one of the biggest contributors to their outperformance. This has again been supported by evidence suggesting that amongst other things firms with autonomy tend to create more value in the long run. Thus, support has been found for the first hypothesis of this thesis. For future research, conducting similar interviews with other compounders listed in the Nordics could be interesting.

Following previous research published by Morgan Stanley, value creation is directly linked to return on invested capital, and companies with high ROIC will on average complete more successful M&A deals (Mauboussin and Callahan,

2022). Furthermore, hypothesis two posits that compounders obtain significantly higher share price returns than other service and infrastructure firms due to their value creation from investment. Value creation from investments is in this thesis restricted to return on invested capital. However, no support has been found for hypothesis number two, meaning that there is no statistical significance between share price return and ROIC for compounding firms. Nevertheless, positively statistically significant results are found for ROIC on share price return for service and infrastructure firms, which contradicts this hypothesis. After having run the robustness tests, there were no significant changes on the output. However, R-squared did improve significantly, meaning that our results have greater explanatory power. This implies that our findings are robust. Consistent with these results it seems that compounders recently have moved away from using growth-to-value ratios to value a company, to rather focus on value-to-growth ratios such as EV/EBITDA. In Summary, ROIC is not able to explain why compounding firms obtain superior returns compared to other service and infrastructure firms.

Research published by EY Parthenon conducted by Sloan (2021) states that companies with limited M&A strategy seem to grow faster than companies who do not limit their strategy. Connecting this to the conglomerate discounts as it is described by Schmid and Walter (2007), the third hypothesis of this master thesis posits that compounders obtain higher share price return than other service and infrastructure firms because of benefits from stable and organic revenue growth. According to Stian Berg in Visma (see Appendix 3) revenue growth is what drives EV/EBITDA the most. Therefore, the third hypothesis is evaluated and discussed using two economical values, revenue growth and EV/EBITDA respectively. Evidence is found that revenue growth is positively statistically significant on share price return for all firms. However, the estimated positive effect is higher for compounding firms which implies that revenue growth can explain why compounding firms obtain superior return compared to other service and infrastructure firms. In addition, evidence is also found that EV/EBITDA is statistically significant on share price return for all firms with the estimated positive effect being higher for compounding firms than for other service and infrastructure firms. Together with the results from revenue growth, this confirms

the evidence that is found for hypothesis number three. In summary, stable, and organic revenue growth can explain why compounding firms obtain superior return compared to other service and infrastructure firms. For further research, we recommend running several regressions with other dependent variables such as EV/EBITDA and TSR.

In conclusion, there are a variety of factors that seem to influence why compounders tend to obtain significantly higher share price return compared to other service and infrastructure firms. These are partly captured by competitive advantages as well as stable and organic revenue growth, represented by revenue growth and EV/EBITDA respectively. The common denominator lies in a clear and restricted M&A strategy that insinuates strong in-house competence. We acknowledge the limitations of the study and have interpreted the results with caution but are confident that the results are representative and contribute with an interesting angle for further research on the topic.

8. References

Abdallah, W., Goergen, M. & O'Sullivan, N. (2015). Endogeneity: How Failure to Correct for it can Cause Wrong Inferences and Some Remedies. *British Journal of Management.* 26(4). 791-804. https://doi.org/10.1111/1467-8551.12113

Arellano, M. (1993). On the testing of correlated effects with panel data. *Journal of Econometrics.* 59 (1-2), 87-97. https://doi.org/10.1016/0304-4076(93)90040-C

Brooks, C. (2014). *Introductory Econometrics for Finance* (3rd Ed.). Cambridge University Press.

Burgman, R., & Clieaf, M. V. (2012). Total Shareholder Return (TSR) and Management Performance: A Performance Metric Appropriately Used, or Mostly Abused? *Rotman International Journal of Pension Management.* 5(2), 1-2. https://deliverypdf.ssrn.com/delivery.php?ID=628003127096099101090068126091067024029024036061084064120096098030084013101072019104060110030124042026061122115114122089022124126034071019079110114109095114084086022071044031100094086026100068020080107123125012092124088091069012028080117113075104013111&EXT=pdf&INDEX=TRUE

Bowman, I. (2023). *Part 1: How do we define a compounder and why do we look for them?* Langdon. https://www.langdonpartners.com/insights/part-1-how-do-we-define-a-compounder-and-why-do-we-look-for-them

CFI Team (2022). *Conglomerate*. CFI Education Inc. https://corporatefinanceinstitute.com/resources/valuation/conglomerate/

Clower, E. (2019). Introduction to the Fundamentals of Panel Data. *Aptech. https://www.aptech.com/blog/introduction-to-the-fundamentals-of-panel-data/*

Cornell, J. (2022). Qualitative Research Methods: Types, Examples and Analysis. *ProProfs Survey Maker.* https://www.proprofssurvey.com/blog/qualitative-research/

Damodaran, A. (2007). Return on Capital (ROC), Return on Invested Capital (ROIC), and Return on Equity (ROE): Measurement and Implications. *Stern School of Business.*

Desai, M. A., Egan, M., & Mayfield, S. (2022). A Better Way to Assess Managerial Performance. *Harvard Business Review.* https://hbr.org/2022/03/a-better-way-to-assess-managerial-performance

Downey, L. (2022). Efficient Market Hypothesis (EMH): Definition and Critique. *Investopedia.* https://www.investopedia.com/terms/e/efficientmarkethypothesis.asp

Durant, I. (2023). Calculating and Improving Revenue Growth: Definition, Importance, and Strategies. *Peep Strategy.* https://peepstrategy.com/how-to-calculate-revenue-growth/

Faulkner, D., Teerikangas, S. & Joseph, R. J. (2012). *The handbook of mergers and acquisitions* (1st ed.). Oxford University Press.

Feldstein, A. (2018). What Does an EV/EBITDA Multiple Mean? *Bluemountain Investment Research.* 1-3. https://pdf4pro.com/view/bluemountain-investment-research-what-does-an-5b4d1c.html

Ganti, A. (2021). Total Shareholder Return (TSR): Definition and Formula. *Investopedia.* https://www.investopedia.com/terms/t/tsr.asp

Ganti, A. (2022). Rational Choice Theory: What is it in Economics, With Examples. *Investopedia.* https://www.investopedia.com/terms/r/rational-choice-theory.asp

Gregory, A. (1997). An examination of the long run performance of UK acquiring firms. *Journal of Business Finance & Accounting, 24(7) & (8),* 971-1001. https://doi.org/10.1111/1468-5957.00146

Gomes, E., Angwin, D. N., Weber, Y. & Tarba, S.Y. (2012). Critical Success Factors through the Mergers and Acquisitions Process: Revealing Pre- and Post-M&A Connections for Improved Performance. *Thunderbird International Business Review, 55(1),* 13-35. https://www.researchgate.net/publication/263598026_Critical_Success_Factors_through_the_Mergers_and_Acquisitions_Process_Revealing_Pre-_and_Post-MA_Connections_for_Improved_Performance

Gonzalez, V.M. (2013). Leverage and Corporate Performance: International Evidence. *International Review of Economics & Finance.* 25. 169 -184. https://www.sciencedirect.com/science/article/pii/S1059056012000652

Hackbarth & Morellec (2008). Stock Returns in Mergers and Acquisitions. *The Journal of Finance*, 63(3), 1025-1534. https://doi.org/10.1111/j.1540-6261.2008.01356.x

Hayes, A. (2022). Behavioral Finance: Biases, Emotions and Financial Behavior. *Investopedia.* https://www.investopedia.com/terms/b/behavioralfinance.asp

Hayes, A. (2022). Enterprise Multiple (EV/EBITDA): Definition, Formula, Examples. *Investopedia.* https://www.investopedia.com/terms/e/ev-ebitda.asp

Hitt, M.A. & King, D. & Krishnan, H. & Makri, M. & Schijev, M. (2009). Mergers and Acquisitions: Overcoming Pitfalls, Building Synergy, and Creating Value. *Marquette University.* 1-9. https://doi.org/10.1016/j.bushor.2009.06.008

Ibaghui, O.W. & Olokoyo, F.O. (2018) Leverage and Firm Performance: New evidence on the role of firm size. *The North American Journal of Economics and Finance.* 45, 57-82. https://doi.org/10.1016/j.najef.2018.02.002

Jackson, J. K., Weiss, M. A., Schwarzenberg, A. B., Nelson, R. M., Sutter, K. M. & Sutherland, M. D. (2021). Global Economic Effects of COVID-19. *Congressional Research Service.* 1-14. https://sgp.fas.org/crs/row/R46270.pdf.

Jenkins, B. M. (2023). Consequences of the War in Ukraine: The Economic Fallout. *The Rand Blog.* https://www.rand.org/blog/2023/03/consequences-of-the-war-in-ukraine-the-economic-fallout.html

Kavanagh, M. H., & Ashkanasy, N. M. (2006). The impact of leadership and change management strategy on organizational culture and individual acceptance of change during a merger. *British journal of management*, *17*(S1), S81-S103. https://doi.org/10.1111/j.1467-8551.2006.00480.x

Kay, J. (2008). Just think, the fees you could charge Buffett. *Financial Times.* https://www.econ.puc-

rio.br/mgarcia/Seminario/Seminario_textos/Just%20think,%20the%20fees%20you%20could%20charge%20Buffett.pdf

Klein, P. G. (2001). Were the Acquisitive Conglomerates Inefficient? *The RAND Journal of Economics. 32(4).* https://doi.org/10.2307/2696391

Koller, T. & Goedhart, M. & Wessels, D. (2020). *Valuation* (7th ed.). Mckinsey & Company.

Mauboussin, M.J. & Callahan, D. (2022). Return on Invested Capital – How to Calculate ROIC and Handle Common Issues. *Morgan Stanley Investment Management.* https://www.morganstanley.com/im/publication/insights/articles/article_returnoninvestedcapital.pdf

Maksimovic, V. & Philips, G. (2002). Do Conglomerate Firms Allocate Resources Inefficiently across Industries? Theory and Evidence. *The Journal of Finance. 57(2).* 721 - 767. http://www.jstor.org/stable/2697756.

Markides, C. & Oyon, D. (1998). International Acquisitions: Do They Create Value for Shareholders? *European Management Journal. 16(2).* 125-135. https://doi.org/10.1016/S0263-2373(97)00082-0

Mitze, Timo. (2009). Endogeneity in Panel Data Models with Time-Varying and Time-Fixed Regressors: To IV or not IV? *Ruth Economic Papers.* 4-5. https://www.econstor.eu/bitstream/10419/26848/1/593491025.PDF

Meckl', R. & Röhrle, F. (2016). Do M&A create or destroy value? A meta-analysis. *University of Bayreuth. 11(2),* 9-19. https://www.researchgate.net/publication/322217484_Do_MA_deals_create_or_destroy_value_A_meta-analysis

Myers, S. C. & Majluf, S. S. (1984). Corporate financing and investment decisions when firms have information the investors do not have. *Journal of Financial Economics*. 13 (2), 187-221. https://doi.org/10.1016/0304-405X(84)90023-0

Myers, S. C. (1984). The Capital Structure Puzzle. *The Journal of Finance.* 39 (3), 575-590.

https://deliverypdf.ssrn.com/delivery.php?ID=590021110103112127071127072074080089001045032063002023097119018000034110028074088074030034012006096092089063069017114088112073099114093102030064117116098031004007087085123083089093095116002081&EXT=pdf&INDEX=TRUE

Paulson, B. & Derold, C. (2015). The Equity "Compounders": The Value of Compounding in an Uncertain World. *Morgan Stanley.* 1-2. https://www.morganstanley.com/im/publication/insights/investment-insights/ii_equitycompounders_en.pdf

PwC (2022). Global M&A Industry Trends: 2022 Mid-Year Update. *PwC.* https://www.pwc.com/gx/en/services/deals/trends.html

Rehm, W. & Uhlaner, R. & West, A. (2012). Taking a longer-term look at M&A value creation. *McKinseyQuarterly.* 1-6. https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/taking-a-longer-term-look-at-m-and-a-value-creation

Renneboog, L. & Vansteenkiste, C. (2019). Failure and success in mergers and acquisition. *Journal of Corporate Finance*. 58. 650 – 699. https://doi.org/10.1016/j.jcorpfin.2019.07.010

Schmid, M.M & Walter, I. (2007). Do financial conglomerates create or destroy economic value? *Journal of Financial Intermediation.* 18(2). 193-216. https://doi.org/10.1016/j.jfi.2008.07.002

Shiller, R.J. (2003). From Efficient Markets Theory to Behavioral Finance. *Journal of Economic Perspectives. 17(1).* 83-104. https://pubs.aeaweb.org/doi/pdfplus/10.1257/089533003321164967

Sloan, B. (2021). How mergers and acquisitions can create value, defying M&A skeptics. *EY Parthenon*. https://www.ey.com/en_us/strategy/how-mergers-and-acquisitions-can-create-value-defying-m-and-a-skeptics

Subrahmanyam, A. (2007). Behavioural Finance: A review and synthesis. *European Financial Management.* 14(1), 12-29. https://doi.org/10.1111/j.1468-036X.2007.00415.x

Trainer, D. (2019). How EV/EBITDA Misleads Investors. *Forbes.* https://www.forbes.com/sites/greatspeculations/2019/04/23/how-evebitda-misleads-investors/?sh=5b4a71a97493

Ullah, S., Akthar, P. & Zaefarian, G. (2018). Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management.* 71, 69-78. https://doi.org/10.1016/j.indmarman.2017.11.010

Woolridge, J. (2019). *Introductory Econometrics: A Modern Approach* (7th ed.). Cengage Learning.

Zhu, Xia and Makino (2015). How do high-technology firms create value in international M&A? Integration, autonomy and cross-border contingencies. *Journal of World Business.* 50(4). 718 – 728. https://doi.org/10.1016/j.jwb.2015.01.001

9. Appendices

Appendix 1 – Definitions

- Compounder: firms that frequently acquire other firms within the same area of business. In other words, a specified and limited acquisition strategy.
- Conglomerates: firms that frequently acquire other firms in various areas of business. In other words, they tend to have a broad acquisition strategy and presence in a variety of sectors. Thus, they can face a conglomerate discount.

- Criterias for our selection of companies in our sample: the sample for this thesis has been created by adding relevant firms to the original sample of compounders and service and infrastructure firms from Arkwright Consulting AS. The original sample consisted of listed firms from the Nordics operating in the sectors of service, infrastructure, technology and industry. To increase the sample, we added firms, both compounder and other service and infrastructure firms, that operated in the same sectors as the original sample that also were listed and located in the Nordics.

Appendix 2 – Overview of sample

Control:

- Age
- Leverage
- Growth
- Size
- industry

<u>Initial sample – Retrieved from Arkwright Consulting</u>

Compounders (N=15)

Company name	Sector	Nationality
Sdiptech AB Class B	Service	SE
Instalco AB	Infrastructure	SE
Beijer Alma AB Class B	Technology	SE
Indutrade AB	Industry	SE
Lifco AB Class B	Service	SE
AFRY AB Class B	Technology	SE
Addtech AB Class B	Technology	SE
Volati AB	Industry	SE
Beijer Ref AB Class B	Technology	SE
Sweco AB Class B	Infrastructure	SE

Bergman & Beving AB Class B	Industry	SE
Lagercrantz Group AB Class B	Technology	SE
Bravida Holding AB	Service	SE
Vestum AB	Industry	SE
Green Lanscaping Group AB	Service	SE

Control Sample (other service and infrastructure firms) (N=8)

Company name	Sector	Nationality
PulteGroup Inc.	Service	SE
Nordic Waterproofing Holding AB	Service	SE
ISS A/S	Service	DK
Lassila & Tikanoja Oyj	Service	FI

Securitas AB Class B	Service	SE
Nobina AB	Service	SE
Coor Service Management Holding AB	Service	SE
Norva24 Group AB	Service	SE

Final sample – finalized March 2023

Compounders (N=24)

Company name	Sector	Nationality
Beijer Ref AB Class B	Technology	SE
Lagercrantz Group AB Class B	Technology	SE
Bouvet ASA	Technology	NO
Sdiptech AB	Technology	SE
AFRY AB Class B	Technology	SE

Addtech AB Class B	Technology	SE
Green Landscaping Group AB	Service	SE
BUFAB AB	Service	SE
NIBE Industrier AB Class B	Industry	SE
Bergman & Beving AB	Industry	SE
Vestum AB	Industry	SE
Atlas Copco AB	Industry	SE
Swedish Match AB	Industry	SE
Beijer Alma AB Class B	Industry	SE
Indutrade AB	Industry	SE
Volati AB	Industry	SE

SWECO AB	Infrastructure	SE
YIT OYJ	Infrastructure	FI
AF gruppen ASA	Infrastructure	NO
Veidekke ASA	Infrastructure	NO
Per Aarsleff Holding A/S Class B	Infrastructure	DK
Skanska AB	Infrastructure	SE
Instalco AB	Infrastructure	SE
Lifco AB Class B	Service	SE

Control Sample (other service and infrastructure firms) (N=111)

Company name	Sector	Nationality
Carasent ASA	Technology	NO
Atea ASA	Technology	NO

Asetek ASA	Technology	NO
Telenor ASA	Technology	NO
Evry ASA	Technology	NO
Itera ASA	Technology	NO
Volue ASA	Technology	NO
Napatech A/S	Technology	SE
Vitec Software Group B AB	Technology	SE
ZetaDisplay AB	Technology	SE
Addnode Group B AB	Technology	SE
Anoto Group AB	Technology	SE
B3 Consulting Group AB	Technology	SE
Telia Co AB	Technology	SE

Ericsson B AB	Technology	SE
Hexagon B AB	Technology	SE
Sinch AB	Technology	SE
Softronic AB	Technology	SE
Netcompany Group A/S	Technology	DK
Simcorp A/S	Technology	DK
CBRAIN A/S	Technology	DK
Columbus A/S	Technology	DK
NNIT A/S Copenhagen	Technology	DK
Cemat A/S Copenhagen	Technology	DK
Penneo A/S	Technology	DK

ABG Sundal Collier Holding ASA	Service	NO
Aurskog Sparebank ASA	Service	NO
Storebrand ASA	Service	NO
Multiconsult ASA	Service	NO
Kitron ASA	Service	NO
Schibsted ASA	Service	NO
Komplett Bank ASA	Service	NO
Gyldendal ASA	Service	NO
NTS ASA	Service	NO
DNB ASA	Service	NO
TOMRA ASA	Service	NO
Pultegroup AB	Service	SE

Nordic Waterproofing Holding AB	Service	SE
ISS AB	Service	SE
Lassila & Tikanoja Oyj	Service	FI
Securitas AB class B	Service	SE
Nobina AB	Service	SE
Coor Service Management Holding AB	Service	SE
Norva24 Group AB	Service	SE
Karnov Group AB	Service	SE
Boozt AB	Service	SE
SAS AB	Service	SE
Ørsted A/S	Service	DK

Pandora A/S	Service	DK
Gyldendalske Boghandel B A/S	Service	DK
HusCompagniet A/S	Service	DK
Matas A/S	Service	DK
North Media A/S	Service	DK
UIE Pic A/S	Service	DK
AGF A/S class B	Service	DK
Bang & Olufsen A/S	Service	DK
Gabriel Holding A/S	Service	DK
Maersk A/S	Service	DK
Akastor ASA	Industry	NO
Aker ASA	Industry	NO

Aker BP ASA	Industry	NO
Aker Solutions ASA	Industry	NO
Aqualis ASA	Industry	NO
Atlantic Petroleum P/F	Industry	NO
Arcus ASA	Industry	NO
American Shipping Company ASA	Industry	NO
Borregaard ASA	Industry	NO
Austevoll Seafood ASA	Industry	NO
NEL Hydrogen ASA	Industry	NO
Elkem ASA	Industry	NO
Equinor ASA	Industry	NO
Norsk Hydro ASA	Industry	NO

ABB Ltd AB	Industry	SE
Concentric AB	Industry	SE
BTS Group AB	Industry	SE
Volvo A/B	Industry	SE
Epiroc AB class B	Industry	SE
Inwido AB	Industry	SE
Malmbergs Elektriska AB	Industry	SE
Mycronic AB	Industry	SE
Railcare Group AB	Industry	SE
Trelleborg AB class B	Industry	SE
Solar A/S class B	Industry	DK
Intermail A/S class B	Industry	DK

Rockwool B A/S	Industry	DK
Schouw & Co. A/S	Industry	DK
TORM A A/S	Industry	DK
Brdr. A & O Johansen A/S class B	Industry	DK
Aquaporin A/S	Industry	DK
Flügger group A/Sclass B	Industry	DK
Brdr.Hartmann A/S	Industry	DK
MT Højgaard Holding A/S	Industry	DK
Carlsberg A/S Class B	Industry	DK
Yara International ASA	Infrastructure	NO
Arendals Fossekompani ASA	Infrastructure	NO

Kongsberg Gruppen ASA	Infrastructure	NO
Entra ASA	Infrastructure	NO
Byggma ASA	Infrastructure	NO
Eqva ASA	Infrastructure	NO
NRC Group ASA	Infrastructure	NO
Scatec ASA	Infrastructure	NO
SeaBird Exploration PLC Norway	Infrastructure	NO
Borgestad ASA	Infrastructure	NO
Traton AB	Infrastructure	SE
Byggfakta Group AB	Infrastructure	SE
NCC AB CLASS B	Infrastructure	SE

Atrium Ljungberg AB class B	Infrastructure	SE
Alfa Laval AB	Infrastructure	SE
Lundin Mining Corporation AB	Infrastructure	SE
JM AB	Infrastructure	SE
Sandvik AB	Infrastructure	SE
NTG Nordic Transport Group A/S	Infrastructure	DK
MT Hojgaard Holding A/S	Infrastructure	DK
Bravida Denmark A/S	Infrastructure	DK
Velux A/S	Infrastructure	DK
FLSmidth A/S	Infrastructure	DK
Dalux Technology A/S	Infrastructure	DK

Byggfakta Group Nordic Holdco AB	Infrastructure	SE

Appendix 3: Interview with Stian Berg - Director of M&A at Visma

Time: 57.17

I1 - Katarina
I2 - Thea
O - Stian

Definitions:

- MD: Managing Director
- pNPS: Product net promote score
- SMB: Small - medium businesses
- PE: Private equity
- CAC: customer acquisition cost

I1: Okay, let´s start. This is our research question as is at the moment.
O: Yes. My question to that is… Let´s see, I´m just going to read it again. Okay, so the question is… Ehm, it´s not... Well, it depends on what you are looking for. Because if we look into our direct competitors, then these are not included in the research question… Those that we most often compete with, meaning technology firms.
I1 and I2: Yeah
O: Those that we compete against the most. I´m not saying that you should change your research question, but just so that if it´s mentioned at one point you know that those are not captured in that. Since you have looked at so-called industrial players. A compounder is like Visma and other service and infrastructure firms are industrial actors, and then PE is just an investment company.

I1: Okay. This might be a stupid question, but no none of these… I´m going to show you our complete list later, but none of those can be PE based?
O: Well, yeah, they might have PE owners, just like us. We have PE owners, and a lot of companies are PE owned, but… The way I feel like you have defined your research question, you are focusing more on industrial actors.
I2: Mm
O: And that´s all good, but just remember to mention that if it appears throughout your thesis. There are other actors in the world of M&A, that are highly relevant, and those are PE companies and venture capitalists.
I2: Yeah. Thank you for the input – highly appreciate it.
I1: I can find the complete list of companies… At the moment we have 25 compounders. Visma is not a part of this list, since they are not listed, and is not on Bloomberg or similar portals.
O: Yeah
I1: We have tried to mix them a bit… It´s definitely easiest to find technology firms. They are also within the Nordics, just to have mentioned that as well.
O: Including Finland?
I1: Yes, including Finland. Some are service, industry, and as you can see the Swedish firms have been the easiest to find.
O: Mm, what is the… I can see that it says Industry, but what is, or how have you defined industry in this setting? Is it all markets and all industries, or is it tech related?
I2: It is… It´s not that limited. We haven´t found.. There´s not too much out there for us to find that fits our criteria, so we have not been too picky when it comes to what we classify as an industry.
O: Mm
I2: In our sample.
O: Yeah, that´s fine. It´s just nice to know.
I2: Yeah. We´ve also used the list of companies from Arkwright as our starting point, so what they have classified as an industry is also what we have continued to classify as an industry.
I1: And then we have our control sample. Where we have chosen to find firms that are in the same area of business or sectors as the compounders in our sample. So that we more easily can draw lines between them.
O: Mm

I1: There´s not too much to find here either, as there are few companies listed in the Nordics compared to the rest of the world, naturally.
O: Yeah, cause how important is it for you, do you feel like, that a company is in one category or the other in terms of sector? Whether they are in service and infrastructure or the other one, how important is that for you?
I1: It has not been too important for us, as we are more on the lookout for their number, but it has been important for our supervisor and for the sample as a whole that we cover the different sectors in our sample. However, for our thesis and writing it, it has not been too important, but it´s obviously needed for the quality of our sample that we capture the different sectors.
O: Okay, so I don´t need to tell you if I think one firm would fall into a different sector than what you have written?
I1 and I2: No, that`s fine. Unless there´s something that is completely wrong.
O: It all depends on the definition of it, to be honest. Cause some may fall into more than one sector.
I2: Yeah, that´s been something that we have struggled with, that we have been sat with a firm that depending on how we are looking at it may fall into different sectors.
I1: Yeah, that has been one of our challenges, whether it falls in one or the other sector, but as long as they have fallen into one of the sectors in our control sample we´ve concluded that it´s all good.
O: Yeah.
I1: Anyway, these (control sample) are also Nordic and have the same sectors as our compounders. We´ve literally googled our way through and tried to find and have included whatever we can find that suits our criteria, which left us with a control sample of 111 at a maximum.
I2: We have definitely challenged ourselves there, as it´s not the easiest task to identify these firms with such specific criteria.
O: Just out of interest, how much data do you need on every firm? Is it NOPAT or EBITDA or is It something else?
I2: We have collected share price development, EV/EBITDA, enterprise value…
O: Mm
I2: … Revenues. We have collected a lot of data..
I1: We have collected a lot of data, we have total returns, share price return, and dividend yield on every firm, and then we have share price return, this is in a

panel data structure and we have assigned numbers to them to suit the panel data format, but we have collected data for each firm from 2011 to 2021.

O: Mm

I1: We have… Those that we actually use are share price return, ROIC, revenue growth, and EV/EBITDA, but we collected a lot more to begin with.

I2: Mm, we definitely gathered a whole lot more that we ended up needing.

O: The one multiple that we use the most is the last one.

I1 and I2: EV/EBITDA?

O: Yes. EV/sales as well, but mostly EV/EBITDA.

I1: Moving on, we have split our research question into "Do they?" and "If so, why?", and for the "do they?" part there are simple calculations from our Excel sheet that confirm the fact that the compounders do outperform, but when it comes to "if so, why?" we need to do a regression on panel data where we have used a compounder dummy to point out what factors that play into this difference.

O: Okay. What am I looking at? Just to clarify.

I1: Okay, so this is.. on the left we have the dependent variable, which in our case is the share price return, and then we run it on the independent variables of ROIC, revenue growth, and EV/EBITDA. Then we have the compounder dummy that gives us the number 1 if it is a compounder and 0 if it's not.

O: Okay. I see.

I1: And from this we found that our dummy has an impact on the dependent variable. So they have a significant impact on each other. On a 0.01… or 99% certainty. So this one is very clear. This just further answers the "do they?" question, which we already have found from running averages. From our dependent and independent variables, having run those against each other resulted in us finding some significance in ROIC and some in revenue growth. However, we found that revenue growth is the one with the most power.

O: Yeah, the one that has the most impact.

I1 and I2: Yeah.

O: That´s the way it has been, at least from 2018 to 2021, revenue growth has been the most obvious factor that governed at least the valuation. However, things are changing, so now the EV/EBITDA is becoming more and more important. I don´t know if you can see that from your analysis?

I1: We only have numbers until 2021. The numbers from 2022 are not complete for every firm, or at least it wasn´t when we were collecting our sample.

O: I see. That´s probably a footnote that you can bring with you when writing the thesis.

I2: Yeah, definitely.

O: Because if we look into tech firms, we can see that from… Eh at least from after the war in Ukraine started, there´s been a change. You could see a trend before the war, but it´s been even more clear after the war. It´s linked to risk and the fact that we all want profits. Which raises the importance of EBITDA.

I2: I see

O: I mean, growth is still important. Growth is what gives a good EBITDA, but it´s more of a shift toward EBITDA now.

I1 and I2: Mm

O: The firms with a high EBITDA are climbing or at least are more stable compared to those that are more linked to growth and might lose some money on the way there.

I1: Has there been, or have you seen a downturn in the revenue growth at Visma?

O: No. The revenue growth of Visma has been increasing. At least after covid began.

I1: Because you cover areas of business that are crucial for society?

O: Yes, and the increasing importance of tech and so on.

I1: Speaking of, I saw a report from Q1 from Merete, where she presented, was it a 19% raise in revenue growth?

O: Mm

I2: That´s impressive.

I1: So it´s not that there is less effect from revenue growth now but it´s more what you choose to focus on?

O: Yes. We can also see that the valuation of firms is more focused on EBITDA in general, as you can see in the stock market.

I1: Mm. This is a bit of a diversion, but the company manager where I work definitely focuses the most on those two – revenue growth and EV/EBITDA. When it comes to reporting and stuff.

O: Mm

I2: Yeah.

I1: Moving on, do you want to…

I2: Sure! So everything we have presented to you now is the way it has been until last week when we had a supervisor meeting, and our supervisor wanted us to

include a couple of more variables to our regression, which has changed our dataset a bit.

O: Mm

I2: Ehm, this is relatively new and we are still collecting the new data that he requested, but we are thinking of adding variables of the age of the firms…

O: On the firms that are buying or the ones that are being bought?

I2: On every company in our sample.

I1: We´ll end up running another regression where we are using for instance age as our dependent variable, looking into whether there is significance between the age of a company and whether or not it is a compounder. For instance, Visma´s age… How long Visma has been doing business and perhaps if they have done well to begin with and the development of performance as a whole.

O: I see.

I2: Then we´re also looking into adding the leverage of the firms, in addition to age.

O: In what sense?

I2: We´re thinking the leverage ratio of the different firms, and if that has something to do with their performance.

O: Okay, I see.

I2: We have not yet decided on the specific multiple that we want t use for that one, but that´s the idea.

O: Okay, but not how they finance their activities?

I1: We´re thinking more in terms of ratios.

O: Okay.

I2: That´s also what is more convenient for us considering the size of our sample and that we are extracting information by hand. And then, we have their size as the last variable that we want to add. So that´s essentially three new regression lines that we are looking at adding.

O: I agree that those a relevant to your research question.

I1 and I2: Yeah, that´s good.

I1: Do you have any further thoughts… For instance age, is it learning by doing? Do you think that it helps to have experience in the field?

O: Well, yeah, I feel like Visma has become more professional as time has passed. Both in terms of what our focus is but also in terms of the acquisition phase and what we focus on and what is important and not important, and also in terms of

the onboarding. You experience how the acquired firms enter the company and what they manage to take on, and then skew the process after having experienced it a couple of times. So to answer your question, yes I believe so, until a certain age. Looking at Visma, I believe we have become better as a whole when it comes to the whole process.

I1: Are you able to draw inferences with leverage ratio?

O: It depends on whether you push the debt into the acquired firm or not. If you do then there is certainly a decreased ability to grow for that specific firm if you add the debt spent on acquiring them to their company.

I1: I see, cause that can happen?

O: Yes, that can happen.

I2: Is that?

O: You can ask the bank for 10 million and then ask that firm to pay off the debt.

I2: I see.

I1: That sounds nice haha

mumbling

O: That will obviously reduce the capacity for that firm though to invest in other things. So that obviously has an impact, but the leverage ratio of the acquired firms… I don´t really…

I1: So how you handle it has more of an impact than the leverage ratio in itself?

O: Yes

I2: Do you think it is more important now, as the economic situation is a bit more uncertain, compared to before?

O: Yes, that´s a good point. Leverage is more expensive now than before, but that´s more related to the capacity for the acquirer. There is less free cash and in general less to buy for.

I1 and I2: Mm

O: It definitely has an impact, but perhaps not as much directly in my experience. Cause what you might want to look into with this one is how the acquired company performs after being acquired, and it might not have too much of an effect.

I2: I see

O: But that´s based on my experience in Visma.

I1: What do you think about growth? We have not defined what we mean by growth at this moment in time, but that can be covered in both revenue and other areas.

O: That´s important. That´s very important.

I1: I see. So that probably makes adding that to the independent variables in our regression valuable?

O: Yes.

I2: But how, I´m just wondering when it comes to growth… If you have a company in sight that you potentially want, how do you measure their growth potential?

O: In the future?

I2: Yes

O: A lot of the analysis made before an acquisition is based on historical numbers, how they have performed in the past, and then often when we are having conversations with a firm we typically tend to be lucky when we enter because we are looking at the future. It´s a traditional hockey stick, where we know that they have grown 10% until now but from now on we have set a goal of a 30% growth right?

I2: Yes.

O: Every seller is built this way.

I2: Mm

O: Then we analyze why this may happen, and what trends will make this happen. Are there trends out there in the market or have they engaged in investments already that make it a natural assumption and so on and so forth? So basically we look at what investments have been done, what trends we are seeing signs of if they are entering or should enter new markets… Have they been located in Norway but will enter Sweden as well? Do we believe this can happen?

I1: And that may be just you presenting these opportunities or is it something they can present themselves?

O: It´s both. Sometimes they themselves present a proposition of how they view their situation and how it should and could be in the future, and then we typically decide what we believe is realistic and not. That is typically what is most common.

I1: Mm

O: A lot of tech companies, where we are in tech which is rule-based tech so accounting, salaries, and so on, where we are the strongest, is difficult to move from one firm to another. A lot of tech firms think it´s easy to enter new countries, but that´s not the case, so we tend to reduce that ability to enter a new country and the growth that will follow. If they succeed, it tends to take way longer than they initially think.

I1: In one of those processes, say you are in an earn-out, are you allowed to potentially cancel plans that the acquired firm has set so that they don´t do anything that you don´t want to be a part of?

O: Well, it depends. You are in many ways allowed to do… until the agreement is signed, you´re allowed to do most and have open discussions on that depending on the competitive situation. Sometimes you don´t want to identify that as a problem because you want to meet their earn-out. So for instance they might think, okay Visma does not believe that we will meet the targets, which will result in a poorer earnout, which again will weaken our competitive situation compared to other firms looking at the same firm. Meaning that we do not want to question their earnout too much in that phase, because it´s good that they have an aggressive earnout or an aggressive plan. But that´s the seller's business case, and then we as acquirers have a different and more internal business case where we consider these potential problems and consider what is smart and what´s not that smart. Whether we do certain things before or after closing is a tactical move that we consider in that internal business case.

I1: I see

O: But we obviously want to point it out at some point in time anyway, but with an earn-out, the seller decides in the earn-out phase. So for instance in Giant Leap, they make the decisions in their earnout period but we are a discussion partner.

I1: Mm. Would it be natural to think that some disagreements may occur during these types of earnouts?

O: Well, yes it may, but that´s rarely the case for us. I believe that the hardest part of it is before closing because there might not be a relationship with a lot of trust at that point. We don´t know them and they don´t know us.

I1 and I2: Mm

O: But after a while, then the sellers tend to realize that we want what is best for them and if we ask questions is purely based on the fact that we want them to maximize the earn-out because that´s essentially beneficial for us as well, because

that also signifies growth and success which will lead to Visma´s success as well. This relationship tends to take a while to establish, but when the trust is there then there tends to just be proactive and nice discussion of what´s realistic and not and how to better succeed. That´s always easier when there´s trust there.
I1: In those situations, are you present throughout the years of the earn-out?
O: No. When the decision has been made by us in the M&A division, then we pass the firm on to the board where there are typically two people from the acquired company and two people from Visma. Those from Visma are typically chosen depending on what the company acquired needs. For instance, this company needs more tech competence or more HR competence, which essentially drives which ones from Visma are chosen to be on the board.
I1: Mm
O: If we for instance find that we need to make big strategic decisions with the acquired firm after it has been acquired because we have realized that there are gaps in the views on what is the correct business plan for them going forward then we need someone from Visma that is able to run that discussion and find a solution. It varies depending on what case we have in front of us.
I1: Mm. That´s interesting. I have seen how it works working at Giant Leap throughout their earn-out, where we now have gotten a few people in from Visma. Amongst others *name* and *name*, where the last one is from the trainee program that you have.
O: Yes, that´s right.
I1: There are definitely changes happening, and new ways of working and stuff like that. There´s a new structure to everything and distinct plans and goal that needs to be met.
O: It´s important to mention that some earn-outs have been living entirely independently from Visma, like Giant Leap, until the earn-out is done. Right?
I1 and I2: Mm
O: And sometimes, that´s fine, but we usually want to implement things that we believe are smart for that company to reduce the gap between pre- and post-earn-out. It should be a natural and smooth transition. Having mentioned that we also prefer that the who had the position as MD during the earnout still is the MD after, so that the staff doesn´t feel like there´s too much of a difference. That is what we ideally want to happen.

I1: Is that… For instance, looking at Tripletex, are they one of those that have been completely independent all along?
O: Well…
I1: I don´t know how things are in-house with them, but…
O: They started off with a certain level of independence, but I would argue that they are what you can call a typical Visma firm now. There´s obviously a degree of independence there but also "need-to-have" Visma things, and they´re doing so well.
I1: They really are.
I2: That´s very impressive. Moving on, we have gathered a few questions, some of them have already been covered, but…
I1: Some have also been covered in the past, but for the sake of the transcribed interview, we have decided to include them again.
O: Mm. Do you want me to read through them?
I2: Yes, maybe we can start at the top of the list. It´s one of the broader questions…
O: Big questions.
I2: Definitely
O: If we look into the most important ones it is that we have become better and more professional throughout the whole process, but our autonomous model is absolutely the most important thing. It is most important because it makes us attractive when talking to potential firms because no firm wants to be merged in randomly where their products disappear, their firm disappears and they are left with a new boss that makes decisions. No one wants to hear that.
I2: Mm
O: They just want to keep going as-is with their baby.
I2: Yes, of course.
O: And that´s our model. Every acquired firm keeps going as-is. More or less as an independent firm. And that´s what I believe is the single most important thing in the acquisition phase that leaves us with a competitive advantage. In addition to the fact that we have proven to be successful, where we can show companies where most of them have been successful and improved their performance after being acquired by Visma. That´s a simple statistic, that they improve after becoming a part of Visma.
I2: Right.

O: Those aspects, and that story-telling aspect makes the process easier. We also have great references from companies that we have acquired, where founders and entrepreneurs that have become a part of Visma tell a story that is beneficial to us and to others. And then, I believe your question will be why we succeed after the company is acquired?

I1 and I2: Mm

O: And it´s the same. I believe that keeping them autonomous and skipping cost synergies will keep them successful. Cost synergies are incredibly nice in Excel and also easy to do in Excel, and Excel works, but the world is not Excel. Every merge that one is a part of is different. In the area of business that we operate in and want to acquire firms in that area of business, where we enter that market and purchase a complementary product in that market or in the market we already are present in. When we do that, the ultimate goal is to win over new clients and not too much on the onboarding to Visma and to extract synergies, as Visma just want them to become better at what they already do. That is our focus.

I1: Is that linked to the in-house competence that we have discussed previously? That one has the opportunity to supplement where needed.

O: Yes, well…

I1: How one extracts here and there without…

O: We don´t want to do the big things. We have really talented people that can help in terms of security, we have developers that can assist where needed, and we have business-developing people that can help in terms of pricing and price modeling. We have 180 firms that have succeeded, and not succeeded, but that can share their experiences and do share their experiences. I believe that…

I1: The as-is moment is strong?

O: Yes, it is. It is also linked to the fact that we have become, or that we are good at identifying what firms that make sense to enter into Visma. The whole process through identifying potential firms, the due diligence, and until closing, that it is the correct firms that are being bought by Visma.

I2: Right

O: Not everyone fits

I2: Is that the strategy that you have been doing since day one? Or has this strategy been built as time has passed?

O: It´s varied through different phases. At one time we bought firms that we completely merged. We do that at times now as well, so we are not

fundamentalists when it comes to our usual procedure. We believe it´s the right thing to do, but we do completely merge if it feels like the right thing to do. Especially over time, if we have bought two firms ten years ago then now might be the time to… Usually most feel like it´s the right thing at that time. But we were definitely looking for more cost synergies then compared to now and cross-sales opportunities. We tried to incentivize the MDs in the different firms to not only sell their own products but also other Visma products. We don´t do that anymore.

I1: Okay

O: They need to figure that out themselves. I mean, we give them advice and point to what we believe is the right direction, but at the end of the day, they do what they feel is right for them and what they want.

I2: Right

O: Not because someone on my floor thinks that is the right thing to do.

I2: Are there any challenges with this that you can think of?

O: There are challenges with everything, but it is… First of all, it depends on the manager capacity in Visma as there are plenty of boards that are managed by Visma, which is a challenge. If we were to merge the managers and boards together, that would probably reduce that, it is a bit different though. We will not be able to extract cost synergies or cross-sales by doing it as we do now, but that is a conscious decision made by us. We believe that the other opportunities are bigger and will therefore focus on that.

I1: Do you think there might be challenges linked to what the firms acquired believe and think will happen and their performance is worse which results in Visma interfering with their procedures? Do you think there might be challenges linked to expectations?

O: Yes, that´s the case. It´s easy to say that they will be independent and keep going as-is if things move in the right direction, but if not then we have agreements in place that enable us to interfere.

I1: Assist?

O: Yes, assist is a better word for it.

I1: Do you think that the majority of the time, when you assist, that the numbers move in the “right” direction? Or will it be… I mean the firms and the employees are the same as before, even though the board and the MDs are different, but the

foundation is the same. Do you think that can affect them poorly if you assist too much? Or do you think it´s all good since you have the knowledge in place?
O: That´s definitely a balance. The culture of an acquired firm is important and something that we want to keep, given that it is a healthy culture. It usually is though, most places. There is no doubt that we focus on how the firm is doing in employee satisfaction, leadership, and so on. That´s something that we focus a lot on, and is important. Especially during heavier times when you might need to change the strategy or change the leaders. It is so important to do that right.
I1: There is a lot of HR involved.
O: Yes, and we do measurements monthly.
I1: We do it every other month.
O: I see. But yes, it´s leadership at the end of the day.
I1 and I2: Yes.
O: We spend a lot of time to land good leaders for the firms that we acquire, and most of the time we try to professionalize because the leaders in the firm acquired might not have leadership as their number one skill but that is creative and stuff like that. That´s a part of it, that being merged with Visma will help them with that.
I1: Mm. One might be dependent on… If you buy a start-up, you might be dependent on keeping the ones that started it all. If not in a leadership position, then on a manager level…
O: That might be the most important effect of the earn-out procedure. The return is good if the firm succeeds as the firm's results decide how much they end up being paid. Which usually is significant amounts.
I1 and I2: Mm
O: In other words, they have all the incentives in the world to keep going and to make sure that the firm succeeds.
I2: Right.
I1: It´s very interesting.
I2: I agree, very interesting. That´s kind of what or why we find our thesis interesting as well, that it´s so much more than just the numbers we can extract from Bloomberg.
O: Right. Looking at your analysis, we never use the formulas that you look at. Never.
I1: You never run regressions and stuff like that?

O: No, we never do. We use… First of all, we analyze how we believe they will perform in the future but then it is also the multiples we look at. What is it now and how will it develop going forward… And then we measure those multiple up against what we believe is the correct market price and so on, as well as the multiples Visma has. It´s the simple formula of taking EV/EBITDA, it´s easier than doing it the way that you do it.

I2: Haha, absolutely.

I1: It really is, and that is definitely a nice aspect to bring into our thesis and the reason why we want to include both the quantitative and the qualitative. It´s also very interesting to compare it to the information we have from Arkwright as well. We were invited to join Lars from Arkwright at his guest lecture at BI to talk about our thesis, which is when we asked you if we could include some points in our presentation, and the focus there is very number specific all the way. But maybe it´s not only the numbers like you say, and maybe one should turn it around a bit and look at the people and the strategies.

O: It´s definitely the case that the deeper analysis of numbers is there, but if our more simple multiple analysis and strategy point towards the right direction then we know that the regressions and the other numbers are good. We just don´t need both, and we don´t need those complicated analyses. We just know based on the multiples.

I1: Just for curiosity, when you finish an earn-out and finished with the companies do you keep up with them and ensure the multiples? Or maybe you get some feedback or reports from finance at the firms?

O: Well, we look at for instance what is the sum of the acquired firms as a whole in 2019 compared to Visma in general and so on. So it´s more cohort analysis, which is effective and works. Doing it like that ensures that we work with the same KPIs that Visma in general is measured at, in terms of growth, EBITDA, return, pNPS, and all that.

I1: What is pNPS again?

O: It´s client satisfaction with the product itself. So to what extent the client is happy with the product. You should not call an MD about that, so it´s more based on the product user. That is particularly in terms of SMB and its indicator of future performance, just like you asked a couple of minutes ago. pNPS is the most important indicator of future performance.

I2: I see

O: The problem however is that there are few firms that have a good pNPS score.
I1: Mm, when you say SMB are you thinking in the small-medium segment?
O: Yes.
I1: Those that tend to be growing or on it´s way somewhere?
O: Yes. That segment has clients coming all the time, so you don´t really need to win over need customers from a competitor. There are new clients coming as we have established new firms, micro clients grow and stuff like that so there is a constant stream of new clients, and based on that client satisfaction is the most important part. You do not need to… If that´s of a certain size, then they will be successful.
I1: And if you can see that it´s no good in terms of that then you interfere?
O: Yes, and consider if you believe that you can turn it around for the better. It doesn´t always work.
I1: I see.
O: So the most important indicators on SMB are pNPS, CAC, and lifetime earnings, i.e. how much you earn from a client. If you win over a client, how long do you have that client before it churns. If you churn 5%, then you have the client for 20 years.
I2: Ah okay.
O: Right? And that´s what decides how they will perform in the future. The most important one is in SMB markets. So there are somewhat different definitions there.
I1 and I2: I see.
O: But as a whole, cause that´s important, we do the same analyses of every firm that we acquire and what is evident is that if we look at the last three or four years then those cohorts perform better than the Visma average. That´s important because we acquire to make Visma grow and improve profitability, and to do so then we need to be above the Visma average, and we do.
I1: Aha
O: So we look at cohort and then if there are some strategically chosen firms then we pay especially close attention to them, but outside of that the responsibility of keeping up with the single firms lies with the board.
I2: Hm, right.
O: And then we can also see that within this area of business then we might have the firms that have performed the poorest, and then we most likely stop the

acquisitions in that area of business or in that specific country. That´s the assessments that we make.

I1: Okay, so you use that as a starting point?

O: Mm

I1: Because there will probably be some firms that perform well in that sector right?

O: Yes, definitely, so there needs to be a certain selection in order for it to make sense because it might just be the firm that we bought that did not perform well. So we need to make sure that those say seven firms didn´t do well for us to withdraw from that area of business. Just so that there is a suspicion of something wrong outside of that one firm and its performance.

I1: Nice. Is there anything else?

I2: I don´t think…

O: I can see that you have written how do we do due diligence?

I2: Well yes, I think we talked about that last time, but if you want to cover it again that´s appreciated.

O: Well, I believe that one of our biggest competitive advantages is that we are fast at doing the due diligence and making an offer. We are willing to take on the risk because we can help them if we find something that they need help with within one of our service lines. Within reason of course, some things are no-go´s, but in general, we are faster because we don´t do the same deep analyses as everyone else. We want to take risks and we are fast. And when you acquire 42 firms a year, you need to limit the depth of the analyses.

I2: That makes sense.

O: For us, due diligence is like butter and bread. We do them all the time.

I1: I see. So it´s a big part of your workday?

O: Yes.

I1: That obviously makes you good at it as well.

O: Yes, but we also... I mean we are generalists and not specialists in the areas of business in Visma. We include specialists from other parts of Visma and after a while find out who in Visma knows their stuff and who does not, right?

I2: Mm

O: That´s a difference right, the ability to understand what makes a Visma firm and what not.

I1: How many are working at M&A now?

O: That´s a good question. We have an M&A department in Norway, one in Sweden, one in Finland, one in Denmark, and one in the Netherlands that are responsible for those markets, but then we also have two to three teams under each one of those.
I1: Right. You´re quite a few then.
O: Yes, we are twelve or thirteen on the team now. From two people in 2019.
I2: Aha, that´s something.
O: The tasks were a bit different then and the division of tasks as well. For instance, parts of the due diligence were run by other divisions of Visma. But we´ve also become better at it.
I1: Good. We also remember some from last time as well, but it has been nice to go through the different variables and so on.
O: I also agree to the additions in terms of variables from your supervisor as well.
I2: That´s good.
I1: We can email you when we have the findings if you would like.
O: Yes, please do. And just reach out, if anything.
I2: That´s very kind. Thank you.
I1: That´s great. Thank you. It´s super interesting to learn more about how you operate.

Interview considered done at 53:25.

Appendix 4 – Regression

Appendix 4.1 - OLS

All firms OLS:

```
Pooling Model

Call:
plm(formula = Y ~ X, data = pdata, model = "pooling")

Unbalanced Panel: n = 135, T = 1-11, N = 1217

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-0.984930 -0.206954 -0.054313  0.166283  1.062944

Coefficients:
                    Estimate  Std. Error t-value  Pr(>|t|)
(Intercept)       -3.7442e-02  1.9923e-02 -1.8794   0.06044 .
XROIC              7.1845e-03  1.0635e-03  6.7558 2.201e-11 ***
Xevebitda          9.4467e-03  1.1785e-03  8.0161 2.551e-15 ***
Xrg                5.2751e-01  5.8365e-02  9.0380 < 2.2e-16 ***
Xlr               -2.9808e-05  1.4110e-04 -0.2113   0.83272
XCompounder dummy -4.0936e-03  2.4244e-02 -0.1688   0.86594
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    148.44
Residual Sum of Squares: 121.78
R-Squared:      0.1796
Adj. R-Squared: 0.17621
F-statistic: 53.0226 on 5 and 1211 DF, p-value: < 2.22e-16
```

Compounding firms OLS:

```
Pooling Model

Call:
plm(formula = CY ~ CX, data = pdatacompounders, model = "pooling")

Unbalanced Panel: n = 24, T = 3-11, N = 228

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-0.643269 -0.180372 -0.035093  0.166630  0.846404

Coefficients:
              Estimate  Std. Error t-value  Pr(>|t|)
(Intercept) -0.17041061  0.05252699 -3.2442  0.001358 **
CXROIC       0.00027647  0.00226855  0.1219  0.903110
CXevebitda   0.02579159  0.00325401  7.9261 1.074e-13 ***
CXrg         0.59386642  0.15443186  3.8455  0.000157 ***
CXlr         0.00005083  0.00045262  0.1123  0.910686
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    26.316
Residual Sum of Squares: 17.106
R-Squared:      0.34998
Adj. R-Squared: 0.33833
F-statistic: 30.0172 on 4 and 223 DF, p-value: < 2.22e-16
```

SIF OLS:

```
Pooling Model

Call:
plm(formula = SY ~ SX, data = pdatasif, model = "pooling")

Unbalanced Panel: n = 111, T = 1-11, N = 989

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-0.929028 -0.206727 -0.060479  0.157541  1.028150

Coefficients:
              Estimate  Std. Error t-value  Pr(>|t|)
(Intercept) -0.01639094  0.02145588 -0.7639    0.4451
SXROIC       0.00844078  0.00118291  7.1356 1.868e-12 ***
SXevebitda   0.00730381  0.00126458  5.7757 1.027e-08 ***
SXrg         0.49040590  0.06282811  7.8055 1.510e-14 ***
SXlr        -0.00011448  0.00014923 -0.7671    0.4432
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    121.06
Residual Sum of Squares: 101.21
R-Squared:      0.16398
Adj. R-Squared: 0.16058
F-statistic: 48.2519 on 4 and 984 DF, p-value: < 2.22e-16
```

Appendix 4.2 - Random

All firms RANDOM:

```
Oneway (individual) effect Random Effect Model
   (Swamy-Arora's transformation)

Call:
plm(formula = Y ~ X, data = pdata, model = "random")

Unbalanced Panel: n = 135, T = 1-11, N = 1217

Effects:
                 var std.dev share
idiosyncratic 0.09972 0.31578     1
individual    0.00000 0.00000     0
theta:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      0       0       0       0       0       0

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-0.984930 -0.206954 -0.054313  0.166283  1.062944

Coefficients:
                    Estimate  Std. Error z-value  Pr(>|z|)
(Intercept)       -3.7442e-02  1.9923e-02 -1.8794    0.0602 .
XROIC              7.1845e-03  1.0635e-03  6.7558 1.421e-11 ***
Xevebitda          9.4467e-03  1.1785e-03  8.0161 1.091e-15 ***
Xrg                5.2751e-01  5.8365e-02  9.0380 < 2.2e-16 ***
Xlr               -2.9808e-05  1.4110e-04 -0.2113    0.8327
XCompounder dummy -4.0936e-03  2.4244e-02 -0.1688    0.8659
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    148.44
Residual Sum of Squares: 121.78
R-Squared:      0.1796
Adj. R-Squared: 0.17621
Chisq: 265.113 on 5 DF, p-value: < 2.22e-16
```

Compounding firms RANDOM:

```
Oneway (individual) effect Random Effect Model
   (Swamy-Arora's transformation)

Call:
plm(formula = CY ~ CX, data = pdatacompounders, model = "random")

Unbalanced Panel: n = 24, T = 3-11, N = 228

Effects:
                 var std.dev share
idiosyncratic 0.07195 0.26823     1
individual    0.00000 0.00000     0
theta:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      0       0       0       0       0       0

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-0.643269 -0.180372 -0.035093  0.166630  0.846404

Coefficients:
              Estimate  Std. Error z-value  Pr(>|z|)
(Intercept) -0.17041061  0.05252699 -3.2442 0.0011776 **
CXROIC       0.00027647  0.00226855  0.1219 0.9030003
CXevebitda   0.02579159  0.00325401  7.9261 2.262e-15 ***
CXrg         0.59386642  0.15443186  3.8455 0.0001203 ***
CXlr         0.00005083  0.00045262  0.1123 0.9105845
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    26.316
Residual Sum of Squares: 17.106
R-Squared:      0.34998
Adj. R-Squared: 0.33833
Chisq: 120.069 on 4 DF, p-value: < 2.22e-16
```

SIF RANDOM:

```
Oneway (individual) effect Random Effect Model
   (Swamy-Arora's transformation)

Call:
plm(formula = SY ~ SX, data = pdatasif, model = "random")

Unbalanced Panel: n = 111, T = 1-11, N = 989

Effects:
                 var std.dev share
idiosyncratic 0.1034  0.3216     1
individual    0.0000  0.0000     0
theta:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      0       0       0       0       0       0

Residuals:
     Min.   1st Qu.    Median   3rd Qu.      Max.
-0.929028 -0.206727 -0.060479  0.157541  1.028150

Coefficients:
              Estimate  Std. Error z-value  Pr(>|z|)
(Intercept) -0.01639094  0.02145588 -0.7639    0.4449
SXROIC       0.00844078  0.00118291  7.1356 9.638e-13 ***
SXevebitda   0.00730381  0.00126458  5.7757 7.664e-09 ***
SXrg         0.49040590  0.06282811  7.8055 5.926e-15 ***
SXlr        -0.00011448  0.00014923 -0.7671    0.4430
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    121.06
Residual Sum of Squares: 101.21
R-Squared:      0.16398
Adj. R-Squared: 0.16058
Chisq: 193.007 on 4 DF, p-value: < 2.22e-16
```

Appendix 4.3 - lagrange multiple test random vs. OLS

All firms:

```
        Lagrange Multiplier Test - (Honda)

data:  Y ~ X
normal = -0.49659, p-value = 0.6903
alternative hypothesis: significant effects
```

Compounding firms:

```
        Lagrange Multiplier Test - (Honda)

data:  CY ~ CX
normal = 1.189, p-value = 0.1172
alternative hypothesis: significant effects
```

SIF:

```
        Lagrange Multiplier Test - (Honda)

data:  SY ~ SX
normal = -0.92394, p-value = 0.8222
alternative hypothesis: significant effects
```

Appendix 4.4 - lagrange multiple test fixed vs. OLS

All firms:

```
        F test for individual effects

data:  Y ~ X
F = 1.0773, df1 = 133, df2 = 1078, p-value = 0.2703
alternative hypothesis: significant effects
```

Compounding firms:

```
        F test for individual effects

data:  CY ~ CX
F = 1.6417, df1 = 23, df2 = 200, p-value = 0.0379
alternative hypothesis: significant effects
```

SIF:

```
        F test for individual effects

data:  SY ~ SX
F = 0.94958, df1 = 110, df2 = 874, p-value = 0.6262
alternative hypothesis: significant effects
```

Appendix 4.5 - Hausman test random vs. fixed

All firms:

```
        Hausman Test

data:  Y ~ X
chisq = 34.082, df = 4, p-value = 7.168e-07
alternative hypothesis: one model is inconsistent
```

Compounding firms:

```
        Hausman Test

data:  CY ~ CX
chisq = 26.979, df = 4, p-value = 2.008e-05
alternative hypothesis: one model is inconsistent
```

SIF:

```
        Hausman Test

data:  SY ~ SX
chisq = 20.324, df = 4, p-value = 0.000431
alternative hypothesis: one model is inconsistent
```

Appendix 5 – First draft preliminary thesis

Preliminary Thesis

"Why does compounder firms obtain a significantly higher return on their acquisitions compared to other infrastructure firms?"

Study Programme: MSc Business, Major in Finance

Supervisor: Janis Berzins

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1. Introduction and motivation

According to Arkwright research, compounders manage to get approximately 40% shareholder returns and 35x valuation with EV/EBITDA multiple on a single acquisition. However, the company has found support for companies within service & infrastructure not achieving correspondingly high returns on the same acquisition. To be precise, support has been found that shareholder return is approximately 15% and the corresponding valuation with EV/EBITDA multiple around 10x. The guest lecturer from Arkwright mentioned the lack of research on this area. On the basis of this we found it interesting, as well as useful, to write our master thesis on this topic.

Our master thesis aims to explain why compounders obtain high EV/EBITDA multiple because of an acquisition. Because there is a lack of research on this area, and because financial theories that we learn in class tells us that there are efficient markets and *"No Free Lunch"* in finance, we are highly interested in the answer of why compounders achieve incredibly high return on acquisitions compared to other service and infrastructure firms. Helping Arkwright solve this question for use in their business also gives us motivation and courage to take on a fairly demanding master thesis.

This topic caught our attention during the guest lecture by Lars Rimmereid from Arkwright in Applied Valuation. We had by then partly decided that we wanted our thesis to be related to the field of Corporate Finance and had already discussed looking into Visma due to their incredible growth over the last couple of years. Rimmereid's thoughts on the shareholder returns were therefore an interesting point of view for our thesis, and due to the fact that we mentioned that there is little research on the difference in shareholder returns we thought it would be interesting to look more into.

The topic is of importance due to the fact that there is according to Rimmereid untapped potential in this particular field. As we have seen the growth of Visma to be massive, which highlights why digging deeper into the synergies and the actual reasoning to why they are experiencing the success that they have done is crucial. Considering that there are few studies on the topic at the moment, and that

literature does not directly cover it, we might experience some limitations to our study. However, we will use data provided to us by Arkwright Consulting to conduct our analysis. Additionally, with valuable insight from Stian Berg, director of M&A at Visma AS, we will be able to supplement our data and findings.

We find it important also to mention challenges associated with our research question. As limitations we see, among other things, a limited amount of literature on the topic. However, this makes the topic even more interesting to us and we are sure there is enough literature out there which in combination with information and views from management in Visma will lay a solid foundation for a great result.

2. Literature Review and theoretical framework

2.1 Acquisitions

M&A are important for a dynamic economy as a particular company that makes inventions is not necessarily best at exploiting it. Further, in a market with declining demand, excess capacity may arise in the organization. In both of these cases acquisitions are often the best way to reallocate resources. It is proven that acquisitions that reduce excess capacity of a firm or lead to better owners and managers create substantial value both for investors and the economy in general (Koller et al., 2020, p.625).

2.1.1 Do acquisitions create value?

The latter years, M&A deals have reached record highs. PWC in their 2022 review on the global M&A industry trends pointed out that the high from 2021 continued into the second part of 2022 (PWC, 2022). Faulkner et al. (2012, p.1) describe mergers and acquisitions (M&A) as a primary strategic option for organizations after the 19th century, in order to secure their position in a highly competitive and globalized market. With this in mind, one could expect that M&A do create value for the acquiring firm. Yet, evidence on the success rate of M&A activities show that there tends to be a lack of value creation from engaging in acquisition, despite its importance in a company's growth (Renneboog and Vansteenkiste, 2019). This concept, that may be considered as somewhat surprising by some, is named the M&A paradox. The M&A paradox covers the contradicting trends of M&A activities growth despite the evidence arguing that

M&A activities generally seem to fail (Weber et.al., 2011). Further, Weber, Tarba and Bachar suggest through their meta analysis that there in fact may be a limited understanding on the subject.

It is apparent that there are conflicting views on the matter. A study from Marquette University has provided evidence that M&A sometimes can be a highly effective and successful strategy. However, this strategy must be designed and implemented carefully (Hitt, M.A. et al., 2009, p.9). This is further supported by Rehm et al.(2012), who provided a longer-term study on M&A value creation. They predict that one have to implement an industry specific approach in order to answer the question if acquisitions do create value, because of important differences between industries and M&A Strategies (Rehm et al., 2012, p.1). They state that returns associated with M&A are widely distributed, but they roughly indicate the top strategies by industry (Rehm et al., 2012, p.6).

Success of large deals tends to be more dependent on the industry specific aspects than success of small deals, which tends to be dependent on the capabilities of the acquiring companies (Rehm et al., 2012, p.6). Further, an EY study has found that M&A does in fact improve enterprise value (EV) and total shareholder return (TSR) (Sloan, 2021). A statement that contradicts the evidence of the failure of the majority of M&A activities. Sloan further states that there is a strong positive correlation between M&A activities and EV and TSR. Considering that TSR is one of the more common value creation metrics, the evidence found by Sloan thereby argues for the success of M&A for growth of corporate value.

Having said that, the majority of the litterature seems to claim that mergers and acquisitions on average do not create value for the acquiring firm. Alan Gregory (1997) wanted to test whether previous work in the US, which had shown that acquisitions are wealth-reducing events for the acquirer, was true or if the result suffered from some type of specification error. In alignment with previous research, Alan provided evidence that large domestic acquisitions on average, in the long term, are unambiguously negative (Gregory, 1997, p.998). This paper wanted to control for size alone, as well as size and Balloon Mitral Valvotomy, and made use of 4 different models in an attempt to disprove the general conclusion that acquisitions in the UK, in the long run, was significantly negative.

However, Alan Gregory (1997) failed to alter the general conclusion. The conclusion of Alan Gregory (1997) and precious work in the UK is further supported by a meta-analysis provided by Meckl' & Röhrle (2016). Their overall findings indicate that actual mergers and acquisitions tend to be unsuccessful (Meckl' & Röhrle, 2016, p.9).

Keeping the two contradicting views above in mind, there is seemingly no conclusion on whether M&A activities can be considered successful or not. Coherent with the conflicting evidence of M&A performance, where some have argued that researchers in the field of M&A have not successfully identified the variables that makes an M&A process succeed (Gomes et.al., 2012). Some researchers have even argued that considering the non-financials are the determining factors of a company's M&A success (Kavanaugh & Ashkanasy, 2006), suggesting a more holistic view.

2.1.2 Cash offers and equity offers

Although Alan Gregory (1997) provided evidence that acquisitions on average, in the long term, does not create value for the acquirer, he did find some difference compared to the rest. More specifically, he found that cash offers were not significantly different from zero when associating it to post-merger performance. Further, he found that equity offers were significantly different from zero and therefore he concluded with negative post-outcome performance of mergers and acquisitions. This result is compatible with acquirers using overvalued equity when buying target firms (Gregory, 1997, p. 998).

According to Stian Berg, Director of M&A at Visma, Visma AS operates with cash offers during acquisitions with an associated earn-out structure to secure incentives for the management of the acquiring company. Mostly this earn-out period lasts for 3 years, with cash offers each year if the acquiring company achieves its predetermined goals. In special cases, where Visma AS is buying Private Equity companies, the cash offers are paid out immediately.

2.2 Applied Valuation teori - verdsettelses teori

In order to investigate the reasoning behind the unprecedented gap between compounders performance compared to other infrastructure firms, we first need to

identify the gap numerically. For this thesis, we will use EV/EBITDA multiple and the TSR. Both measures of performance, however, still capture somewhat different aspects of valuation of a company.

2.2.1 EV/EBITDA

As previously mentioned, Bill Sloan in an EY study looking at how M&A can create value stated that the enterprise value (EV) benefits from M&A activity, considering it is done in the right way (Sloan, 2021). The EV, by including the company in question's debt, is considered a solid measurement when it comes to M&A activities (Hayes, 2022). The enterprise multiple, EV/EBITDA, by dividing the EV on the metric for operating performance, presents a picture of the economic value of the company to a potential acquirer (Hayes, 2022). When conducting our analysis, the EV/EBITDA will thereby be of high value due to it´s position as a valuation multiple.

2.2.2 TSR

The second measure of performance highlighted by Sloan in his study is the TSR. Sloan presented the TSR as one of the most used value creation metrics (Sloan, 2021). Illustrating performance through TSR presents how much an investor will get from investing in the company (Ganti, 2021). Thus, in terms of a potential acquisition, the acquirer will be left with an indication of how much the acquirer will be left with after the acquisition, which therefore may be considered as an efficient projector of how the company will do in the future. Further, by decomposing the TSR one can help with setting targets for the company (Koller et.al., 2020, p. 74-76). Thus, using the TSR as a metric may therefore provide acquirers with a good projection of the future as well.

2.2.3 Behavioral finance

To investigate why there are such differences in M&A performance, we consider it useful to look into theoretical frameworks such as the efficient market hypothesis (EMH) and behavioral finance, specifically in terms of biases. In a nutshell, the difference in perception of M&A activities' success must be explainable in one way or another. In coherence with amongst others Kavanaugh and Ashkanasy´s (2006) belief of it being attributed to non-financials, one may argue that there are concepts outside of plain numerical analysis. For instance in terms of behavioral finance, covering the theory behind financial decision making.

Thus, it may also be able to capture what is going on behind decisions related to M&A activities.

Behavioral finance in general is based on the assumption that no human, thus no financial actors, acts perfectly rational but affected by biases and psychological influences (Hayes, 2022). Coherent with the rational choice theory stating that most people make decisions for own personal gain, thus despite the assumption of rationality as the core, complete rationality may thus not be possible (Ganti, 2022). Based on this, one would argue that no one is able to make decisions without being affected by emotions, prior experiences, and knowledge. In terms of M&A performance, given that the decisions are made by humans either in or outside of the organization, this would then argue that a potential acquirer will not be able to be completely rational and make decisions without being affected by some kind of bias. This again may be perceived as a dimension that partly explain the different perceptions of M&A performance. Thus, one may also be able to draw lines between this and the significant difference of TSR and EV/EBITDA.

2.2.4 EMH

Having stated the rationality assumption of behavioral finance, one could argue that the theory of efficient markets thus would not hold. The EMH states that market prices reflect all available information in the market (Downey, 2022). Thus, arguing that the market participants in fact are rational. In terms of M&A this would presume that an acquirer should not be able to obtain any excessive returns or losses on their acquisitions. Efficient market theorists argue that the EMH tends to hold on individual stock levels, but not at aggregate market levels, which again is in alignment with the tendency of the EMH unable to explain market anomalies (Shiller, 2003). Shiller, in his paper on behavioral finance and the EMH, argued that EMH cannot be used to describe markets and market movements, but rather that behavioral finance on a greater level needed to be included to capture the wholeness of the market movements. With this in mind, one could therefore assume that the EMH would be inefficient in explaining the differences in M&A performance.

2.3 Primary

2.3.1 Compounder

According to Elbert Einstein, compounding interest are the most powerful force in the universe. This was pointed out by a research done by the Investment Team for Worldwide Asset Management, which further defined compounder as "companies, that can deliver sustainable and long-term growth" (Worldwide Asset Management Fondsmaeglerselskab A/S, no date). Paulson & Derold (2015) define compounders as "Companies with high quality, franchise businesses, ideally with recurring revenues, built on dominant and durable intangible assets, which possess pricing power and low capital intensity" (p.2).

Compounders tend to have a financial strength from intangible assets, and the key financial characteristic is high ROIC (Return on Invested Capital), high gross margins and low-capital intensity. Together these components support strong free cash flow generation, which in turn must be reinvested or distributed to shareholders (Paulson & Derold, 2015, p.2). They believe that compounders, with strong franchise quality, have a sustainable competitive advantage through their intangible assets. It may appear that competitors have difficulty re-creating these intangible assets, making the competitive position of compounders even stronger (Paulson & Derold, 2015, p.2). Through their research, Paulson & Derold (2015) found that compounders in general have generated superior risk-adjusted returns (p.1).

2.3.2 Conglomerate

According to the CFI Team, a conglomerate is a large company consisting of several combined companies, formed by M&A activities. Conglomerates often supply goods and services in a huge range of industries that are not directly related to one another (CFI Team, 2022). Maksimovic & Philips refers to several other recent studies, which have provided evidence that conglomerates may face a conglomerate discount because they have a greater chance of acquiring and selling assets differently than the median single-segment firm. Further, it is proven that conglomerate firms on average more often purchase lower-value firms than other single-segment counterparts (Maksimovic & Philips, 2002, p.763).

2.4 Diversification

2.4.1 Direct diversification

Since conglomerate firms consist of several combined companies which operate in industries that are not directly related to each other, one can argue that their business model is based on diversification. However, Maksimovic & Phillips (2002) have provided evidence that firms with skill in production within an industry obtain higher growth and obtain a higher market share in that industry. This study also provides evidence that conglomerates may have to deal with agency problems, and that demand shocks in one segment may affect the growth rates of other segments in the company. However, this is true for both positive and negative demand shocks (p.723).

Further, Klein (2001) provided evidence that there is an overall negative relationship between value and diversification. He found that the performance of large, acquisitive conglomerates was more volatile than compounders and other infrastructure firms during periods with discount, such as late 60's and early 70's. However, the literature of Klein (2001) is conflicting as he found that *"Appropriately organized conglomerates"* could add value by creating internal capital markets. This finding is supported by earlier findings of Williamson (1975).

2.4.2 Indirect diversification

Markides & Oyon (1998) has provided evidence that international acquisitions on average create value for shareholders of the acquiring firm. A possible solution for this might be that international acquisitions allow investors to diversify their portfolio risk indirectly by purchasing multinational shares. Further, a possible solution might be that the acquiring firm increases its profits because they get to exploit their intangible assets in other markets (Markides & Oyon, 1998, p. 132). International acquisitions only create value if the acquiring firm possesses intangible assets. Such international acquisition may contribute to diversification for compounding firms.

3. Research methodology and hypotheses

3.1 Hypothesis

With respect to our literature review above we will present our potential hypotheses.

H1: Compounders obtain high EV/EBITDA multiple because of competitive advantage.

H1 is based on the assumption that compounders obtain higher market shares and higher growth within an industry because of skill in production, together with evidence for an overall negative relationship between value and diversification.

H2: Compounders obtain high EV/EBITDA multiple because of benefits from indirect diversification.

Compounders implement M&A within a specific sector, and one could argue that their businesses are undiversified. However, Markides & Oyon (1998) has found evidence that international acquisition may lead to indirect diversification for firms that processes intangible assets. H2 is based on the abovementioned literature.

H3: Compounders obtain high EV/EBITDA multiple because of benefits from stable and organic growth (robusthet?)

Researchers seem to be somewhat indecisive regarding the effectiveness and success of M&A activities. Some highlights the fact that there is evidence of its failure, whilst others present it as crucial for a corporation's growth. Connecting the dots between M&A performance and the type of corporation may therefore be wise, as some researchers have found a trend in conglomerates and their failure. Compounders, with their strong intangible assets and seemingly more specified approach, may therefore be able to establish a more stable and organic growth, and further, then create a ground that enables a higher EV/EBITDA multiple. Coherent with the findings in Sloan´s EY study where he found that companies

engaging in a more limited M&A approach grew close to five times faster than those who lacked that property from their strategy (Sloan, 2021).

3.2 Methodology

In order to answer the research question of why compounders obtain high EV/EBITDA multiple it will be essential and necessary to compare, among others, share price, shareholder return, and total return for compounders with the same values for other service and infrastructure firms. Therefore, it will be appropriate to use a quantitative approach for our master thesis, which emphasizes the statistical, mathematical, or numerical analysis of data (USCLibraries, 2023). However, there seems to be a limited amount of literature on the topic. To ensure that our master thesis holds the theoretical weight that we want, and the right insight into the industry to be able to give a full-fledged answer to our research question, we have chosen to combine a quantitative approach with a qualitative approach, which involves collecting and analyzing non-numerical data through open-ended communication (Cornell, 2022).

As several influential employees from Visma AS pointed out in our previous meetings, analysis of numerical data only will answer a fraction of the enormous success of Visma AS (as a compounder) over the past years. This is supported by Cornell (2022) which has provided evidence that numbers do not provide a complete picture in order to understand people and their perceptions and emotions. To summarize, it will be appropriate for us to use a combination of a quantitative and a qualitative approach in our master thesis.

4. Data and preliminary analysis

We are glad to announce that we will carry out our research question in collaboration with Arkwright, who has provided us with processed data on compounders and other service and infrastructure companies. The dataset was handed over to us already in December 2022, and we have further supplemented the dataset with several compounders and service and infrastructure companies.Our dataset is limited to *listed companies within the Nordics* because of the lack of listed compounders in Norway and contains values such as total returns, share price returns and dividend yield which is calculated on the basis of a number of financial values. Our dataset is limited to the time period 2011-2022.

Clower, E. (2019) defines Panel data as “data that contains observations about different cross sections across time. Examples of groups that may make up panel data series include countries, firms, individuals, or demographic groups”. The abovementioned financial values are calculated over a time period from 2011 to 2022 for compounders and other service and infrastructure firms which means that our dataset consists of both time series and cross-sectional dimensions making. Based on this it will be appropriate to implement a panel data regression model in our thesis.

Further, our master thesis will contain qualitative data from interviews with Arkwright and Visma AS. On October 22 we conducted an interview with Lars Rimmereid, managing partner in Arkwright. As soon as we have defined our hypotheses and provided possible answers, we will coordinate a new meeting with Lars to discuss the topic in even more detail. On December 22 we also conducted an interview with Stian Berg, director of M&A in Visma, where he gave us detailed information about why Visma AS achieves fantastic results year after year. Similar to Arkwright, we will set up a new meeting with Stian and other key employees at Visma AS when our hypotheses are defined to gain more insight into the relevant points for the conclusion from the business of Visma AS.

5. Model estimation

The goal of our master thesis is to answer the question of why compounders obtain high EV/EBITDA multiple because of an acquisition. In order to reach the goal we will run several statistical regressions to reject or keep our defined hypotheses. Because of the characteristics of our dataset, we will implement a panel data regression model. Whether we choose to implement the model of entity-fixed effect or time-fixed effects is not determined at this point in time, and we will therefore present both models in the following.

5.1 Entity-fixed effects:

$$Yit = \propto + \beta \times Xit + \mu i + Vit$$

→ where μ *i* encapsulate all of the variables that affect *Yit* cross-sectionally but do not vary over time. Regression with entity-fixed effects eliminates the omitted variable bias arising from unobserved entity-specific variables that are constant over time. Entity-specific variables can be allowed for using dummy variables: Least squares dummy variable (LSDV) approach (P. Konermann, personal communication, September 2022).

$$Yit = \beta Xit + \mu 1D1i + \mu 2D2i + \mu 3D3i + \ldots + \mu nDNi + Vit$$

5.2 Time-fixed effects models:

$$Yit = \alpha + \beta \times Xit + \lambda t + Vit$$

→ where λ *t* is a time-varying intercept that captures all of the variables that affect *Y* and that vary over time but are constant cross-sectionally. Time variation in the intercept terms can be allowed for in the same way as for entity-fixed effects: A least squares dummy variable model (P. Konermann, personal communication, September 2022).

$$Yit = \beta Xit + \lambda 1D1t + \lambda 2D2t + \lambda 3D3t + \ldots + \lambda tDTt + Vit$$

PS: In both models, "Y*it*" will be our dependent variable. "i" refers to the firm specific index, whilst "t" represents the time specific index. Further, $\propto$ (the intercept term) and β (the vector of parameters to be estimated on the explanatory variables X*it*) will be identical for all *i* and all *t* (P. Konermann, personal communication, September 2022).

5.3 Results:

The expected results from the regression will tell us whether there in fact is a higher EV/EBITDA multiple and TSR in the compounder´s acquisition compared to the other infrastructure firms in our sample. If there is a significant difference, then we will be able to use this for further investigation of our thesis question. More specifically, a significant result in terms of the enterprise multiple and the

TSR will prove our overall statements, which we then must further use to get quantitative support that will support the hypothesis we have stated above.

The current model stated above model is the one we believe will provide us with the information needed for further investigation of our hypotheses. It is at this moment open to necessary changes if needed. We expect to be done with the descriptive statistics, data handling and regression at the end of February/early March. Thus, our results will be ready by then as well after our model has been found to be sufficient.

6. Resources

CFI Team (2022, November 9). *Conglomerate*. CFI Education Inc. https://corporatefinanceinstitute.com/resources/valuation/conglomerate/

Clower, E. (2019). Introduction to the Fundamentals of Panel Data. *Aptech.* *https://www.aptech.com/blog/introduction-to-the-fundamentals-of-panel-data/*

Cornell, J. (2022, 21. june). Qualitative Research Methods: Types, Examples and Analysis. *ProProfs Survey Maker*. https://www.proprofssurvey.com/blog/qualitative-research/.

Downey, L. (2022). Efficient Market Hypothesis (EMH): Definition and Critique. *Investopedia.* https://www.investopedia.com/terms/e/efficientmarkethypothesis.asp

Faulkner, D., Teerikangas, S. & Joseph, R. J. (2012). *The handbook of mergers and acquisitions* (1th ed.). Oxford University Press.

Ganti, A. (2021). Total Shareholder Return (TSR): Definition and Formula. *Investopedia.* https://www.investopedia.com/terms/t/tsr.asp

Ganti, A. (2022). Rational Choice Theory: What is it in Economics, With Examples. *Investopedia.* https://www.investopedia.com/terms/r/rational-choice-theory.asp

Gregory, A. (1997). An examination of the long run performance of UK acquiring firms. *Journal of Business Finance & Accounting, 24(7) & (8),* 971-1001.

Gomes, E., Angwin, D. N., Weber, Y. & Tarba, S.Y. (2012). Critical Success Factors through the Mergers and Acquisitions Process: Revealing Pre- and Post-M&A Connections for Improved Performance. *Thunderbird International Business Review, 55(1),* 13-35.

Hayes, A. (2022). Behavioral Finance: Biases, Emotions and Financial Behavior. *Investopedia.* https://www.investopedia.com/terms/b/behavioralfinance.asp

Hayes, A. (2022). Enterprise Multiple (EV/EBITDA): Definition, Formula, Examples. *Investopedia.* https://www.investopedia.com/terms/e/ev-ebitda.asp

Hitt, M.A. & King, D. & Krishnan, H. & Makri, M. & Schijev, M. (2009). Mergers and Acquisitions: Overcoming Pitfalls, Building Synergy, and Creating Value. *Marquette University.* 1-9.

Kavanagh, M. H., & Ashkanasy, N. M. (2006). The impact of leadership and change management strategy on organizational culture and individual acceptance of change during a merger. *British journal of management, 17*(S1), 81-103.

Klein, P. G. (2001). Were the Acquisitive Conglomerates Inefficient? *The RAND Journal of Economics. 32(4).*

Koller, T. & Goedhart, M. & Wessels, D. (2020). *Valuation* (7th ed.). Mckinsey & Company.

Maksimovic, V. & Philips, G. (2002). Do Conglomerate Firms Allocate Resources Inefficiently across Industries? Theory and Evidence. *The Journal of Finance. 57(2).* 721 - 767.

Markides, C. & Oyon, D. (1998). International Acquisitions: Do They Create Value for Shareholders? *European Management Journal. 16(2).* 125-135.

Meckl', R. & Röhrle, F. (2016). Do M&A create or destroy value? A meta-analysis. *University of Bayreuth, 11(2),* 9-19.

Paulson, B. & Derold, C. (2015). The Equity "Compounders": The Value of Compounding in an Uncertain World. *Morgan Stanley.* 1- 2.

Rehm, W. & Uhlaner, R. & West, A. (2012). Taking a longer-term look at M&A value creation. *McKinseyQuarterly.* 1-6.

PwC (2022). Global M&A Industry Trends: 2022 Mid-Year Update. *PwC.* https://www.pwc.com/gx/en/services/deals/trends.html

Renneboog, L., & Vansteenkiste, C. (2019). Failure and success in mergers and acquisitions. *Journal of Corporate Finance*, *58*, 650-699.

Shiller, R.J. (2003). From Efficient Markets Theory to Behavioral Finance. *Journal of Economic Perspectives. 17(1).* 83-104.

Sloan, B. (2021). How mergers and acquisitions can create value, defying M&A skeptics. *EY Parthenon*. https://www.ey.com/en_us/strategy/how-mergers-and-acquisitions-can-create-value-defying-m-and-a-skeptics

USCLibraries (2023, 3.january). Research Guides. https://libguides.usc.edu/writingguide/quantitative.

Weber, Y., Tarba, S. Y., & Bachar, Z. R. (2011). Mergers and acquisitions performance paradox: the mediating role of integration approach. *European journal of international management*, *5*(4), 373-393.

Worldwide Asset Management Fondsmaeglerselskab A/S (no date). The Anatomy of a compounder.